



WORKPLACE POLICIES ON SUBSTANCE USE: IMPLICATIONS FOR CANADA

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EXECUTIVE SUMMARY

INTRODUCTION

Recognizing the challenges Canadian employers face with respect to workplace-related substance use, a synthesis of the latest research and practice related to workplace drug use and impairment was conducted, to determine if and how a national standard might provide guidance on the issue. Cannabis was a particular but not exclusive focus for the research, given its changing status in federal law. In addition to a literature review and environmental scan, the research included interviews with 12 experts in the area of drug impairment or occupational health and safety more generally, either as regulators, clinicians, researchers, policy makers, or testing service providers, or as representatives of labour or industry.

FINDINGS

Policy and legal context

Research for this report found limited guidance for Canada from international regulations and policy on workplace substance use. Uruguay and several US states have legalized recreational cannabis, but their regulations are not yet developed enough to provide a good comparison with Canada's federated system. Policy comparisons with European countries are more relevant – though not specifically for cannabis – given the emphasis there on privacy rights, occupational health and safety, and collaboration between industry and labour.

In Canada, workplace impairment from any substance will still be prohibited after legalization of cannabis – employers and employees are bound by occupational health and safety, human rights, and privacy legislation to take reasonable precautions to ensure work is performed safely.

Policies

There is growing interest in workplace policies on substance use to prevent or reduce related harms and costs, and to promote employees' health, safety, and well-being, but comprehensive policies are relatively rare in Canadian workplaces. In light of the limited research in this area, expert opinion and current practice suggest comprehensive substance use policies – developed in collaboration with workplace stakeholders – provide the most protection and guidance to workplace stakeholders.

Testing

Workplace substance use testing in Canada generally involves chemical analysis of saliva or urine to detect the presence of a drug, but there is currently no standard test for impairment from drugs (or fatigue or stress), and no general agreement on how to interpret results for cannabis in particular. There are also concerns about privacy, human rights, cost, and potential cheating with chemical testing, and the research evidence is very limited on its effectiveness in deterring substance use and reducing accidents and injuries (with the exception of alcohol testing for drivers). Functional assessments of cognitive impairment are promising, but still in development and not yet evaluated.

Assistance

It is more common for workplace policies to outline sanctions for substance use than assistance for employees with substance-related problems, but a number of education and training initiatives exist, especially for supervisors to identify signs of impairment and how to address them. Employee Assistance Programs (EAPs) are also popular, though evidence of their effectiveness is mixed. Brief interventions that focus on health promotion, psycho-social skills training, and referral are seen as promising, along with web-based coaching/feedback and advice.

GAP ANALYSIS

The research revealed many complex issues with respect to workplace-related substance use, and cannabis in particular. The following emerged as particularly prominent gaps:

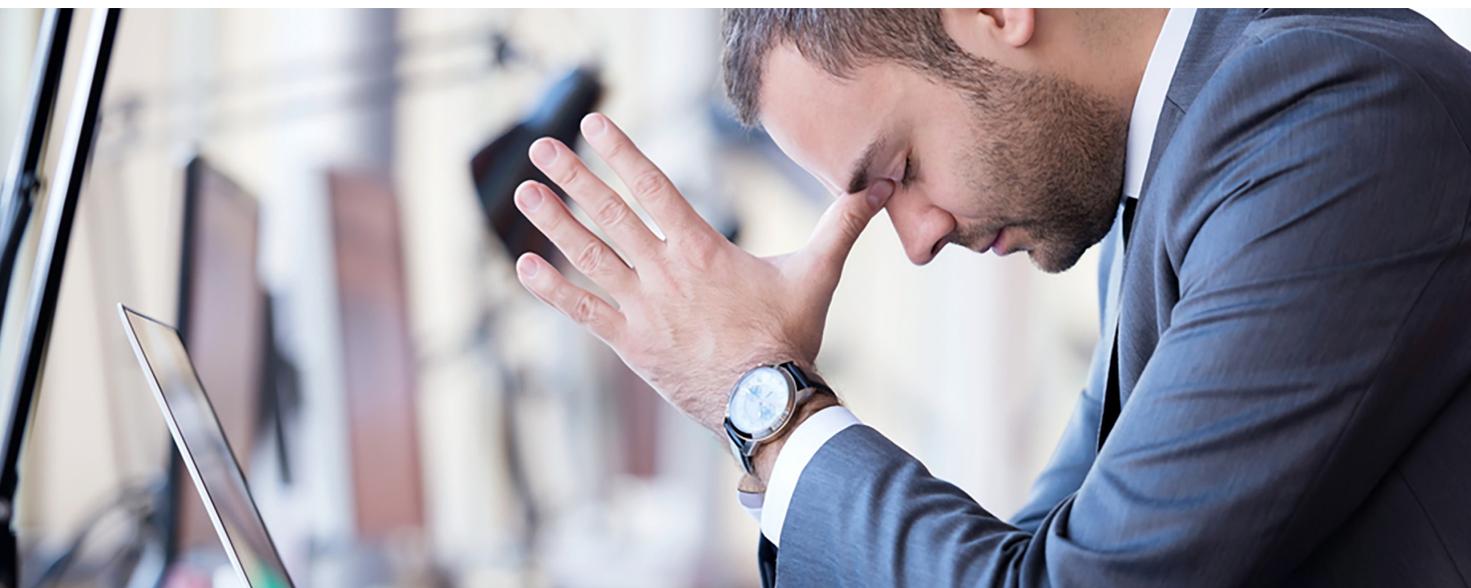
- Research on cannabis is still limited;
- Workplace substance use policies are still rare outside of safety-sensitive sectors;
- Testing plays a limited role;
- Programs and supports that assist employees with substance-related problems have a limited but promising evidence base;
- Balancing legal issues will be challenging for some time.

CONCLUSIONS

The report concludes with the following main points:

- The potential impact of legalization of recreational cannabis on Canadian workplaces is uncertain and expected to be wide-reaching, so early preparation for workplaces is important.
- No separate set of workplace rules or policies is needed to address impairment from drugs as opposed to other substances; all-substance policies developed collaboratively with workplace stakeholders are recommended.

There is support for development of a national standard that provides guidance on workplace policies on substance use, and tools to support their development and implementation.



INTRODUCTION

ISSUE STATEMENT

Canadians' use of alcohol, cannabis, and other drugs can affect their workplaces in a number of ways, particularly when it involves risky use,¹ on-the-job impairment, or the after-effects of consumption. Negative consequences can include workplace injuries, absenteeism, diminished quality of work, strain on work relationships, and deterioration in employees' physical, emotional, and mental health. These effects, in turn have direct costs to organizations in terms of productivity, accidents and insurance rates, and disability and injury claims as well as indirect consequences for workplace morale and culture (e.g., Pidd, Kostadinov, & Roche, 2016; Meister, in press).

As a result, substance use has been an ongoing concern for employers and employees, as well as for unions, industry associations, insurance companies, health professionals, and government policy-makers and regulators. However, concerns have increased recently as Canadians' risky use of

alcohol and illicit drugs has grown (Statistics Canada, 2017)² and particularly with the legalization of recreational cannabis expected in the summer of 2018.

Cannabis represents a particular challenge for workplaces due to its forthcoming change in status from an illicit to a licit (but controlled) substance, along with existing legalization for its therapeutic use. In comparison to alcohol, much less is known about how current forms of cannabis affect brain chemistry and behaviour in different populations, or the implications for workplace health and safety and for public health.

As well, Canada will be only the second country after Uruguay to legalize cannabis (Government of Canada, 2016), so there is little guidance in terms of a nationwide regulatory perspective. Even once federal regulations are released, provincial and territorial governments will be developing and adapting their own legislation to address areas of provincial/territorial responsibility, which will in turn likely be interpreted by the courts for some time to come.

¹ That is, risk of chronic or acute use – see low-risk drinking guidelines by the Canadian Centre for Substance Use and Addictions (CCSA, 2015).

² For instance, results from the 2015 Canadian Alcohol Tobacco and Drugs Survey showed that the prevalence of past-year use of at least one of six illicit drugs among Canadians was 13% (or 3.7 million), an increase from 11% (or 3.1 million) in 2013.

In this evolving regulatory context, employers and other workplace stakeholders are looking for guidance on how to address the issue of workplace substance use in a way that not only ensures employees with substance use problems get the help and support they need, but also that workplaces remain safe, employees' health and privacy are protected, costs are contained, and any other potential negative outcomes are prevented.

OBJECTIVE

This research report is intended to:

- Produce a synthesis of available evidence on existing national and international policies, programs, and procedures related to workplace drug use and impairment;
- Identify promising practices for Canadian workplaces; and
- Provide an analysis of gaps and recommendations for further efforts, including the potential for a standards-based approach.

The following research questions guided this work:

- What are the existing national and international workplace policies, guidelines, and programs on illicit and licit drug use that can cause impairment on the job?
- What are the workplace training practices and programs in Canada that educate and train employers, supervisors, and employees on the impact of impairment due to illicit and licit drug use?
- What are the gaps in policies, guidelines, and programs related to illicit and licit drug impairment in Canadian workplaces?

SCOPE

The purpose of this research report is to provide a summary or synthesis of the research and practice-based evidence on workplace-related substance use, and to identify best and emerging practice where available. It does not provide detailed guidance on specific issues, such as detection of impairment, testing procedures, hazard assessment, or supportive interventions.

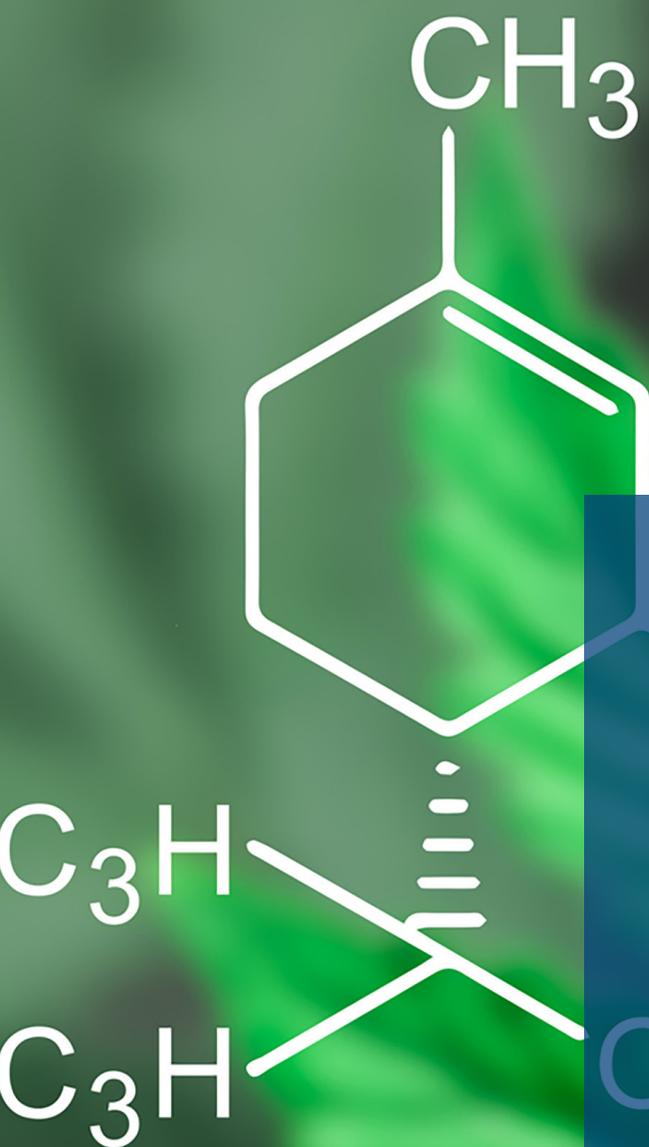
The research focus for this paper covered both safety-sensitive jobs and sectors, as well as those not considered

safety-sensitive. Multiple workplace roles were considered including employers, supervisors, and employees. Where applicable, the role of other workplace stakeholders was also considered, including labour unions and associations, occupational health and safety and other medical personnel, regulators and government, testing and training personnel, and researchers. Analysis of a range of labour market sectors was sought, though in-depth exploration of how specific sectors have addressed the issue of workplace drug impairment was out of scope.

The focus of this work was on both illicit drugs and those available by prescription or over-the-counter, although much of the research literature differentiates between licit and illicit drugs. Cannabis was of particular interest due to its changing status in Canada as a controlled substance for therapeutic use and soon, recreational use. This became part of the rationale for determining which international jurisdictions to select for review.

Alcohol was not a particular focus of the research, although it is referenced frequently throughout the paper. This is to acknowledge that alcohol is the most commonly-used substance inside and outside of work in Canada and many other parts of the world (e.g., Statistics Canada, 2017; European Foundation for the Improvement of Living and Working Conditions, 2012), and according to a few interviewees, is sometimes consumed together with cannabis or other drugs. In addition, knowledge about the effects of alcohol and how to identify and address alcohol impairment serves as the primary model for policy development on drug impairment more generally. Finally, much of the intervention research literature reviewed for this report takes an all-substance approach, as does workplace policy in Canada and elsewhere in the world.

While impairment is often interpreted to mean acute intoxication, job performance and workplace safety can also be jeopardized by lingering effects from prior substance use (e.g., a 'hangover', fatigue). Moreover, employers, employees, and co-workers are affected by a range of issues due to substance use, not only at the stage of impairment. Without venturing beyond the scope of this paper into the vast literature on substance use in general, terminology used in this report is intended to reflect this broad range of issues, and in as non-stigmatizing manner as possible.



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REPORT STRUCTURE

This research report briefly describes the research methods used and then presents the research findings, beginning with the international and Canadian legal context. Other research findings are organized into three main areas: 1) workplace policies, 2) testing, and 3) assistance for employees. Each section presents a typology, evidence of effectiveness, guidance for workplaces based on emerging or best practices, and relevant issues and gaps.

The report's Discussion section includes a gap analysis, considerations for a standards-based solution, and key reference documents that may be of particular interest to readers. The report closes with conclusions about the role of a national standard on workplace substance use policies.

RESEARCH METHODS

To address the three research questions on policies and programs, training practices, and gaps with respect to workplace-related substance use, the following methods were used:

- A targeted review of the academic literature;
- A targeted scan of grey literature available online; and
- Key informant interviews (n=12) with a broad range of workplace stakeholders in terms of roles, industries, and sectors.

The review of the academic literature was based on a search of the Cochrane Library, Social Sciences Citation Index (SSCI), and Google Scholar using a series of pre-defined search terms (listed in Appendix A) related to the research questions. Potentially relevant articles were subsequently identified by scanning titles, abstracts, and citations. Previous literature reviews – particularly systematic reviews, where these were available – were prioritized to develop a broad map of issues within the scope of this review and establish a sense of the quality of the evidence.

To obtain more information on issues not addressed in the academic literature and to see how policy was developing within and outside of Canada, iterative, targeted searches were

conducted of the grey literature using Google as the primary search engine. Key points were summarized from materials gathered through the literature review and environmental scan and organized by theme; gaps in the evidence were tracked along the way.

Concurrently, telephone interviews were conducted with 12 key informants, including representatives from the occupational health and safety (OHS) sector as well as industry and disability management/training stakeholders. Specific individuals were identified through an online search and in collaboration with CSA Group, based on their specific expertise or roles (see Appendix B for a list of organizations represented in the interview process). The interviews were semi-structured and explored a range of workplace drug use and impairment issues, including areas that, thus far, appeared to be gaps in the academic and grey literature.

As a supplement to the interviews, a series of questions were posed via email to members of the Canadian Association of Administrators of Labour Legislation Occupational Health and Safety (CAALL-OSH) Committee, which serves as an authority on occupational hazards across the country.

Finally, a series of targeted scans were launched to address any remaining gaps.

RESEARCH FINDINGS

INTERNATIONAL LEGAL CONTEXT

Countries around the world have vastly different approaches to addressing substance use that affects the workplace. Public policy, regulations, and other agreements to address the issue vary considerably according to cultural factors and the perceived relevance of the issue, as well as with industry-specific needs. While much of this variability applies to alcohol, the same is increasingly true for cannabis as more countries opt for either lax enforcement of cannabis laws, decriminalization, or legalization.

This section provides a high-level overview of how drugs in general – cannabis in particular – are currently addressed from a regulatory perspective with respect to the workplace in select jurisdictions, to compare and contrast with the Canadian context.³

³For a more detailed overview, see CCSA's (2016) report: *Cannabis Regulatory Approaches*. Specific details should be sought from regulatory authorities in each jurisdiction, as these can change.



United States

To date, 30 states and the District of Columbia have passed laws related to therapeutic use of cannabis (Governing Magazine, 2018), reflecting significant changes in "public and legislative support which has accompanied state-wide medical marijuana initiatives" (Mello, 2013, p. 660). In addition, measures to approve recreational cannabis have been passed in nine states:⁴ Colorado and Washington in 2012, Alaska in 2014, and Oregon in 2015, followed by California, Maine, Massachusetts, and Nevada in 2016 and Vermont in 2018 (Governing Magazine, 2018).

In many ways, however, the US regulatory framework is still very much informed by the War on Drugs initiative of the early 1970s and 1980s. *The Controlled Substances Act* (1970) regulates the manufacture, possession, distribution, and classification of drugs, including marijuana, which is classified as a Schedule I drug (Phillips et al., 2015).⁵ In addition, the *Drug-Free Workplace Act* of 1988 requires most federal contractors, grantees, and employers in the transportation and commercial nuclear power industries to maintain a drug-free workplace and expressly prohibits the use and possession of cannabis in the workplace.

The US Department of Transportation (DOT) regulations – which apply to all companies conducting business in the US – require mandatory testing, and as of 2009, specifically prohibit 'medical marijuana' for those in safety-sensitive positions.

While not actually a requirement of the Act, employers not covered by DOT guidelines typically maintain compliance by regular or random drug testing (Mello, 2013). By default then, workplace policy in much of the US is zero tolerance – if tests indicate the presence of any illicit drug metabolite (e.g., tetrahydrocannabinol or THC, the main cannabinoid responsible for the psychoactive effects of cannabis), employees are subject to sanction, usually dismissal.

However, states vary in their requirements for employers to obtain a licence for testing, including the need to demonstrate safety concerns (Maine Department of Labor, 2017; Van Pelt, 2017). Several states also have special provisions that protect therapeutic use of cannabis, and the *Americans with Disabilities Act* (1990) prohibits discrimination on the grounds of disability. As a result, the current lack of alignment between

⁴ though the legal framework for sale has not yet been fully articulated in all (e.g., Maine).

⁵ defined by the US Drug Enforcement Administration (DEA) as drugs with no currently accepted medical use and a high potential for abuse, whose use is subject to prosecution (Phillips et al., 2015).

federal and state law leaves many employers with conflicting obligations. Those that operate in several states face an even more complicated set of possible legal scenarios.

Not surprisingly, organizations and employees have sought clarity on the issue from US courts. While a detailed review of these decisions is beyond the scope of this paper, most courts have deferred to federal law (Mello, 2013). Accordingly, the American College of Occupational and Environmental Medicine (ACOEM) guidelines state: "As long as marijuana is illegal under federal law, employers who fire or refuse to hire employees for using marijuana are not in violation of the Americans with Disabilities Act (ADA) or any other federal antidiscrimination statute, although there are restrictions on drug testing" (Phillips et al., 2015, p. 459).

Europe

The merits of changing cannabis laws are the topic of much policy debate in Europe. While a number of European countries have decriminalized possession of small amounts of cannabis for personal consumption (Mello, 2013),⁶ no country has yet legalized recreational marijuana or officially authorized cannabis smoking for medical purposes (European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), 2017).⁷

According to the European Foundation for the Improvement of Living and Working Conditions (EFILWC, 2012), workplace legislation on substance use in Europe is addressed in several ways:

- national labour codes and worker statutes (Bulgaria, the Czech Republic, France, Latvia, Lithuania, and Spain);
- specific mention of impairment in laws regarding health and safety at work (Austria, Estonia, Ireland, Luxembourg, Slovakia, Slovenia, and Sweden);
- collective agreements between 'social partners' such as labour unions (Belgium, Germany, and Denmark); and
- general laws on drug use with specific mention of the workplace (Italy, Poland, Slovakia, and Slovenia).

Likewise, regulations on drug testing vary across Europe. Only Finland (2003), Ireland (2005) and Norway (2005) have

legislation that specifically addresses the issue of drug testing in the workplace, which may indicate increasing support for workplace testing in those countries (CASR, 1998; Pierce, 2012, both cited in Pidd & Roche, 2014).

The discussion on workplace drug testing in Europe displays a similar pattern to the Canadian discourse. The primary tension is between the employer's general duty to provide a safe working environment and to respect employees' privacy, particularly when testing technology is not adequate to determine impairment, as with cannabis. Individual countries' response to this tension varies by the degree to which they set out regulations for when, how, and to what extent testing can be done; in general, however, privacy rights are highly protected. Some regulations clearly lay out what is allowed for employers, while others leave it to employers to determine their own approaches. European countries may have additional regulations based on industry or type of work (e.g., the mining sector in Greece, soldiers in Austria; see EFILWC, 2012).

Specifically, many countries state that testing can take place when there is a risk to health, safety, or security; when otherwise justified; or when drug use is suspected. There is often an emphasis on health aspects rather than the illegality of the drug consumed and on qualified occupational directors disclosing only whether an employee is "fit for work" rather than full test results.

Regulations in several countries state that testing should be part of an overall health policy and focus on impairment rather than detection. Some countries penalise unjustified testing with criminal fines, though countries vary in the extent to which pre-employment testing is permitted in certain situations.

It should also be noted that virtually all countries have incorporated the European Convention on Human Rights, and health and safety into their own laws. The European Union General Data Protection Regulation also applies transnationally to companies processing EU data, though sanctions for privacy breaches are left to Member States to define and implement (EMCDDA, 2006).

⁶including Belgium, Croatia, the Czech Republic, Estonia, the Netherlands, Poland, Portugal, Spain, Switzerland, and the United Kingdom.

⁷with the possible exception of Finland (Mello, 2013).

Other jurisdictions

Uruguay – Uruguay was the first country to legalize cannabis in December 2013, despite the fact that, unlike Colorado and Washington, public support for the initiative was apparently low. In enacting Law 19,172, President Mujica also created the Institute for the Regulation and Control of Cannabis (IRCCA) to regulate production, distribution and sale, reduce risks and harms, and monitor compliance with related laws and regulations (Drug Policy Alliance, 2014). Limitations on use are generally more restrictive than those in Colorado and Washington, and driving under the influence of cannabis is a crime (Cannabis Law and Policy Project, 2015).

Employees in Uruguay are prohibited from working "when their capacity to complete their task is affected by the consumption of psychoactive cannabis," to be determined by "random non-invasive preventative tests" (Chapter VII, article 42, cited in Drug Policy Alliance, 2014). However, the IRCCA has yet to develop workplace testing methods and procedures or to define acceptable THC levels. Employers are permitted to suspend employees who are intoxicated in the workplace, although health and safety committees or local trade union organizations are to determine if treatment or sanctions are warranted, according to the obligations in the work contract (Chapter VII, article 42, cited in Drug Policy Alliance, 2014).

Australia – Prevalence of substance use in Australia has been estimated at similar levels to the US, but with roughly 36 per cent of employees reporting alcohol consumption at risky or high risk levels and 16 per cent reporting illicit drug use in the past year (Roche, Pidd, & Kostadinov, 2016, cited in Pidd et al., 2016), efforts to address the issue have increased. Workplace drug testing began in the 1990s and has become widespread in safety-sensitive sectors such as transport, mining, and police and corrections (Allen, Prichard, & Griggs, 2013.), in part to fulfill employers' obligations under occupational health and safety legislation to provide a safe workplace for all employees and visitors (Holland, 2016).

Holland (2016) contends that when deciding challenges to drug testing, Australian courts initially balanced occupational health and safety with individual rights and privacy, but that more recent court decisions are moving in a similar direction to the

US. Specifically, courts are prioritizing contractual obligations such as zero-tolerance workplace policies over consideration of contextual factors such as impairment and performance, employment record, work conditions, etc.

CANADIAN LEGAL CONTEXT

The regulatory framework for workplace-related substance use in Canada is very different from that in the US, reflecting not only different public policy and legislative histories but social contexts as well.⁸ As Macdonald, Csiernik, Durand, Rylett, Wild, and Lloyd (2006) note, the US Department of Transportation tried in 1989 to influence Canada to adopt similar legislation to its own, which mandated testing in certain companies in the transportation sector. After Transport Canada encountered widespread antipathy to this approach in public consultations, however, the government let the proposal drop.⁹

The current framework includes a mix of federal and provincial/territorial regulation (summarized below), rulings from labour arbitrators and human rights tribunals, case law, and collective agreements. While a detailed study of these is beyond the scope of this review, an overview of relevant legislation is included here. Below is a legislative timeline to illustrate the evolving regulatory status of cannabis in Canada, given its unique role in challenging the existing framework.

Legislative timeline

- **1908** – Drug prohibition begins in Canada with the *Opium Act*.
- **1911** – Opiates and cocaine are added to the list of prohibited drugs.
- **1923** – Cannabis is added as a prohibited item.
- **1929** – Canada introduces the Opium and Narcotic Drugs Act, which remains the country's main drug policy instrument for the next 40 years.
- **1961** – United Nations' Single Convention on Narcotic Drugs in 1961 establishes international agreement on a boundary between licit and illicit drugs.
- **1971** – Convention on Psychotropic Substances further establishes the licit/illicit boundary.

⁸ not least of which is the larger role played by Canadian labour unions and associations.

⁹ US DOT regulations must be followed, however, by Canadian companies operating across the two countries and those headquartered in the US (as applicable), but not by Canadian organizations in general.



- **1972** - Le Dain Commission recommends decriminalizing cannabis.
- **1975** - Bill S-19, seeking to decriminalize cannabis possession, is defeated.
- **1987** - The federal government implements a drug strategy considered to have the most severe cannabis censorship strategy in the world (Herman, 2017).
- **2000** - Under the Marihuana Medical Access Regulations (MMAR), Canadians may access cannabis for medical purposes by growing their own plants, purchasing from the Health Canada supply, or designating someone to produce for them (Garis & Tyakoff, 2017).
- **2013** - Marihuana for Medical Purposes Regulation (MMPR) sets out the conditions for a commercial industry to begin producing and distributing medical marijuana (Garis & Tyakoff, 2017); the Supreme Court rules against random drug testing, stating that safety-sensitive concerns do not outweigh employee privacy (Christie, 2015).
- **2016** - Federal court ruling *Allard v. Canada* rules that citizens should have reasonable access to medical marijuana, meaning they can purchase cannabis beyond licensed producers; the current Access to Cannabis for Medical Purposes Regulations (ACMPR) are produced (Garis & Tyakoff, 2017).
- **2017** - Federal government introduces legislation to legalize, regulate, and restrict access to cannabis; Bill C-45 (42-1) is expected to come into effect in the summer of 2018; there are several areas of joint provincial and/or municipal responsibility (see Table 1).

Guidance for workplaces

In Canada, occupational health and safety, human rights, and privacy legislation all have sections that pertain to workplace substance use. Moreover, each of the 14 jurisdictions in Canada – federal, provincial, and territorial – has its own legislation in all three areas. Detailed information about specific employer and employee obligations should be sought from the appropriate regulatory agencies.

Occupational health and safety (OHS) legislation

- OHS legislation across the country obligates employers to provide a safe work environment and in doing so, to practice 'due diligence,' defined as "the level of judgement, care, prudence, determination, and activity that a person would reasonably be expected to do under particular circumstances" (CCOHS, 2018, p. 8).
- According to Canada's Labour Program, which protects the workplace rights of federally-regulated employers and

TABLE 1: JURISDICTIONAL RESPONSIBILITIES FOR CANNABIS IN CANADA

ACTIVITY	RESPONSIBLE		
	Federal	Provincial	Municipal
Possession limits **	✓		
Trafficking	✓		
Advertisement and packaging **	✓		
Impaired driving	✓	✓	
Medical cannabis	✓		
Seed-to-sale tracking system	✓		
Production (cultivation and processing)	✓		
Age limit (federal minimum) **	✓		
Public health	✓	✓	
Education	✓	✓	✓
Taxation	✓	✓	✓
Home cultivation (growing plants at home) **	✓		
Workplace safety		✓	
Distribution and wholesaling		✓	
Retail model		✓	
Retail location and rules		✓	✓
Regulatory compliance	✓	✓	
Public consumption		✓	✓
Land use/zoning			✓

**Provinces will have the ability to strengthen legislation for these areas under federal jurisdiction.

Source: Government of Alberta (n.d.) Cannabis legalization in Canada (website).

employees (Government of Canada, 2018), reasonable precautions have three criteria with which to judge each case of due diligence: possible, suitable, and rational, given the particular situation (CCOHS, 2018).

- Actionable steps of due diligence consist of written occupational health and safety policies and programs, and employers and health and safety committees collaborating to identify and mitigate workplace hazards. Impairment falls into this recourse as an identifiable hazard (CCOHS, 2018). In other words, legalization of cannabis does not imply anyone has a right to be impaired at work.

Human rights legislation

- Under the *Canadian Human Rights Act*, federally regulated employers are duty bound to accommodate individuals with diagnosed disabilities or medical conditions, which includes employees with drug and alcohol dependence or those using drugs for therapeutic reasons (CCOHS, 2018). To mitigate against the possibility of employees perceiving risks to disclosure, employers have a 'duty to inquire' if there is a connection between job performance and a potential disability, and to provide a 'meaningful opportunity' for the employee to identify a disability and request accommodation. Human rights legislation at the provincial and territorial level covers other employers, and tends to share similar principles (Canadian Human Rights Commission, n.d.).
- Accommodation must be attempted even in circumstances of diminished functionality or impairment, to the point of undue hardship. An employer can appeal to courts or tribunals if accommodation would (i) be prohibitively expensive to the extent of altering the essential nature of the enterprise, (ii) change the structure/organization of work to the point of risking the organization's viability, or (iii) pose health and safety risks. In such cases, the burden of proof for undue hardship is on employers, who must demonstrate they took all reasonable measures to accommodate employees (CCOHS, 2018).

Privacy legislation

- Canada has two federal privacy laws: the *Privacy Act*, which pertains to individuals' personal information held by the federal government, and the *Personal Information Protection and Electronic Documents Act* (PIPEDA). The latter concerns personal information collected, used, and disclosed through

commercial activities or activities that relate to federally-regulated employees in select provinces and territories.

- All provinces and territories have their own privacy laws related to provincial agencies' handling of personal information. Some also have specific health- or employee-related privacy legislation (Office of the Privacy Commissioner of Canada, 2018).

Issues and gaps

- **Balance** – Finding a balance between the rights of employees and employers is a challenge, especially on an issue with as many contributing factors as workplace-related substance use. As noted by several of our interviewees, an employer's duty to provide a safe place to work depends in part on employees coming to work 'fit for duty' and reporting any reason that might jeopardize that, whether from medication, fatigue, or substance use.

On the other hand, employees may not feel free to make such disclosure for fear of judgment or stigma, sanction, or job loss. Employers may feel testing is the only way to ensure a safe workplace, although they also have to ensure employees' privacy rights are protected, and accommodations are provided in the event of demonstrated substance-related disability.

- **Defining 'safety sensitive'** – Employers' rights to test for impairment due to alcohol or illicit drugs are limited to 'safety sensitive' positions in which impairment poses a substantial safety risk to employees, co-workers, the public, or the environment. However, while several organizations have developed definitions of 'safety sensitive' (e.g., CHRC, 2017), no standard definition exists. This means employers who face court challenges related to testing must demonstrate the nature and extent of safety risk in each instance. Many other regulatory issues related specifically to testing are addressed in the section on substance use testing, below.
- **Knowledge gaps** – It will take some time for all levels of government to develop regulations – and the policies and procedures needed for their implementation – in all their areas of responsibility with respect to cannabis. In the interim, tribunal and arbitration decisions and case law will likely continue to guide workplace practice, though this can be an unpredictable and expensive process for all involved, particularly for small and medium-sized organizations.

Organizations need to ensure their policies reflect evolving case law with respect to workplace-related substance use as applicable, but equally, not every organization can or should start the process from scratch. There is a need to facilitate information-sharing and reduce duplication of research efforts by each employer.

- Organizations that conduct business in several jurisdictions have to deal with different regulations, which could become even less harmonized after legalization of cannabis.

WORKPLACE POLICIES ON SUBSTANCE USE

As a means of fulfilling their legislated obligations, employers usually address employee substance use¹⁰ and impairment through workplace policies, also sometimes referred to as alcohol and other drug (AOD) policies. In fact, there is growing interest from a wide variety of stakeholders – not only employers and labour, but also researchers and public health advocates – in workplace policies as a means of preventing or managing substance use problems (Pidd, Kostadinov, & Roche, 2016).

While priorities may differ, this interest stems from a desire both to curb employees' substance use and related negative outcomes and to promote a safe and healthy work environment (Cercarelli, Allsop, Evans, & Velander, 2012; Pidd et al., 2016). The Atlantic Canada Council on Addiction (ACCA) frames the purpose of substance use policies slightly differently: "to demonstrate risk management, provide guidance to employees and managers, establish good workplace relations, and protect employers from disputes" (Addictions Services Nova Scotia, 2007, cited in ACCA, n.d., p. 6).

Types of workplace policies

Substance use policies typically comprise three types or strategies: 1) written policies on the use of alcohol or other drugs at work; 2) substance use testing; and 3) assistance in the form of information, education and training, and/or supports (Pidd et al., 2016); each are described in detail in this section. These strategies can exist alone or in combination; all three together in certain cases can be considered comprehensive substance use policy, although the relevance of testing in Canada is generally limited to safety-sensitive positions.

Based on a recent comprehensive scan of Canadian workplace policies on substance use, the Canadian Centre on Substance Use and Addictions (CCSA; Meister, in press) differentiates workplace policies on substance use by level of detail, ranging from a simple position statement to comprehensive policy. The latter addresses the majority of components and elements identified in the literature as characteristic of well-developed policy.

Both in Canada and internationally, the relative emphasis on each strategy and the ways in which they are implemented varies considerably by jurisdiction, sector/industry, organization type, and purpose, as well as in response to the evolving social, political, and legal context. At the risk of over-simplifying the issue, workplace policies on substance use tend to be more prevalent and comprehensive in larger organizations and in safety-sensitive sectors (Meister, in press; Pidd et al., 2016); our interviewees indicated that presence of a union is also a factor.

CCSA also found that as a whole, workplace policies tend to focus more on prohibiting substance use than on supporting those with substance use problems (Meister, in press). The research for this report¹¹ confirmed this is also true, to varying degrees, of substance use policies in the US (Larson, Eyerman, Foster, & Gfoerer, 2007), Australia (Cercarelli et al., 2012; Holland, 2016), and Europe (EFILWC, 2012).

Evidence

The research conducted for this report found very little research on the effectiveness of workplace policies on substance use and only slightly more on the nature and extent of such policies internationally. The positive results on smoking rates from workplace smoking cessation programs and policies may hold promise for policies on alcohol and drugs, but this has not been thoroughly explored (Pidd et al., 2016).

While there are a number of claims that workplace policies on substance use – US testing programs in particular – have led to a decrease in detection rates, there are serious methodological limitations with the studies on which these claims are based (see Testing, below; see also Macdonald et al.

¹⁰ Depending on the nature of the workplace, substance use policies may also address use by contractors, students, volunteers, customers or clients, or members of the public.

¹¹ Note that unlike CCSA's review, the scan for this report was of the academic and grey literature, not a comprehensive scan of Canadian workplace policies as primary data.



DRUGS

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**THIS IS A
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WORKPLACE**

2010). While Pidd et al.'s (2016) study also has methodological limitations,¹² it goes somewhat further than other studies in exploring the relationship between policy *type* and substance use and attitudes, using results from a national 2010 survey of Australians. This study found that having any substance use policy in place in the workplace – or a written policy plus assistance – was associated with decreased odds of high risk drinking,¹³ and comprehensive policies were associated with decreased odds of drug use.

For workplace policies on substance use, therefore, emerging "best practice" relies primarily on expert opinion, scans of current practice, and consensus from the field. Based on these criteria, our research found four key sources that could be considered emerging best practice for development of workplace policies on substance use:

- CCSA's *Review of workplace substance use policies in Canada* (Meister, in press);
- ACCA's guide, *Problematic substance use that impacts the workplace: A step-by-step guide to addressing it in your business/organization* (n.d.);
- The *Joint Guidance Statement of the American Association of Occupational Health Nurses and the American College of Occupational and Environmental Medicine* (ACOEM) by Phillips et al. (2015);
- The *Canadian model for providing a safe workplace: Alcohol and drug guidelines and work rule*, developed by the Construction Owners Association of Alberta (COAA, 2014), in collaboration with industry stakeholders. While comparing and evaluating industry policies was beyond the scope of our research, several interviewees made reference to this document as a best practice guide not only for the construction sector but also for oil and gas and, potentially, other safety-sensitive sectors as well (see also the Key resources section presented at the end of this paper).

Guidance for workplaces

According to ACOEM guidelines, "Best practice for employers is to begin with a clear written policy regarding chemical use and impairment" (Phillips et al., 2015, p. 463). The guidelines then list a number of elements such a policy should include, many of which are found below. As part of the process of developing a substance use policy, however, ACCA (n.d.) and others (e.g., Cercarelli et al., 2012) recommend employers begin with a needs assessment of risk and contributing factors, to determine to what extent the workplace may be affected by substance use, identify organizational strengths and resources, review appropriate policy and program options, and highlight potentially cost-effective ways to achieve workplace goals.

In CCSA's review of the literature and Canadian workplace substance use policies, Meister (in press)¹⁴ identified eight key components "consistently identified as important to substance use policies" (p. 18), and within each, a number of specific elements. Many of these components mirror the policy development guidelines from ACOEM. Recognizing that every organization will need to customize and structure their substance use policies according to their specific needs,¹⁵ these components include:

1. Objectives and scope - A policy statement on the organization's position on substance use; the purpose/intent of the policy; who is covered;¹⁶ when and where it applies; what substances are included; and the expectations, roles, and responsibilities of the employer to provide a safe work environment. The objectives also outline the employer's 'duty to inquire' if an employee is affected by substance use and, in certain cases, to offer accommodation. Policies also note employees' 'duty to disclose' if they are taking any substances that could affect their ability to work safely and actively participate in accommodation if this route is decided upon.

¹² specifically, in being a correlational (no comparison group) and cross-sectional/point-in time study rather than measuring change over time.

¹³ defined as 11 or more drinks on one occasion. More moderate 'risky' drinking (5 to 10 drinks) was not correlated with any policy type.

¹⁴ CCSA's review also relied on an environmental scan of over 800 websites of Canadian employers, a national survey, and 12 key informant interviews. CCSA is the primary source for information presented in this section, although reference is made to other sources where these were reviewed directly (e.g., ACOEM guidelines, ACCA). For more detail on the evidence cited for specific components and related elements, please refer to CCSA's full review (Meister, in press).

¹⁵ CCSA's document is clear that these components were developed as a way of evaluating scanned policies and do not necessarily represent a framework or structure for actual workplace policies.

¹⁶ for example, employees, contractors, volunteers, students.

2. Prevention – Proactive elements such as education and training to help reduce and deter substance use and develop a supportive workplace culture and norms (i.e., beliefs, values, and behaviours) with respect to all substance use, including alcohol, and any related business or after work social activities.

3. Observation and investigation – Clear procedures on how to monitor, detect, and handle substance use and impairment, either from alcohol and illicit drugs, other substances, or other sources such as stress or fatigue. This could include referral mechanisms for unsafe work practices reported by other employees (Phillips et al., 2015), or regular check-ins with supervisors or other opportunities for self-disclosure. If testing forms part of an organization's substance use policy due to the safety-sensitive nature of the work, the conditions and procedures for its use are also outlined (see Testing, below).

Regardless of the specific nature of the work, CCSA, ACOEM, ACCA and others recommend that the behavioural and performance indicators of potential substance use or impairment be documented, along with the roles of various personnel involved in inquiring about, detecting, and handling suspected cases of substance use and impairment in a manner that maintains employee dignity, confidentiality, and other human rights. ACOEM guidelines also suggest the policy clarify what substances, if any, are permitted on-site and if, and to what extent, searches are included in the policy.

4. Support – Although evidence is still emerging in this area, it appears that providing support to employees can have favourable effects, such as through brief educational interventions, general health checks, referral from peers, and, particularly, psychological counselling and Employee Assistance Plans/Employee and Family Assistance Plans (EAPs/EFAPs; see Meister, in press). Other options for smaller organizations include referral to local community services and information (see the Assistance section below). Measures to protect employee confidentiality also apply here.

5. Return to duty/return to work – Comprehensive policies outline the employer's duty to accommodate employees who have been determined as having a substance use disorder or disability along with the conditions and process by which employees return to duty/work after an extended absence, such as for treatment. For safety-sensitive positions, this could include fitness-for-duty evaluations and follow-up testing.

CCSA notes that return to work policies and practices need to account for potential relapse during recovery (e.g., return to work agreement, relapse agreement), since this is a common experience for people affected by substance use. Otherwise, specific conditions for return to work are typically developed on a case-by-case basis and not included in organizational policy.

6. Non-compliance – Related elements describe what constitutes violation of the substance use policy, the procedures involved, and the consequences in terms of disciplinary or deterrence measures to be taken by the organization. Allsop, Phillips, and Calogero (2001, cited in Cercarelli et al., 2012) suggest that effective policies ensure that consequences for non-compliance are reasonably graduated (also known as progressive discipline), consistent with the seriousness of the breach.

7. Review and evaluation – This component includes several elements, such as conducting a needs assessment to determine what type of policy would be most appropriate for an organization's unique situation, developing the policy in consultation with all workplace stakeholders,¹⁷ and reviewing the policy on a regular basis to ensure it reflects current regulations and evolving case law. The policy can also identify indicators of the effectiveness of workplace policies in reducing substance use and related negative outcomes (e.g., rates of accidents, near-misses, injury, absenteeism, or productivity), determined through periodic evaluation and/or monitoring.

8. Legal requirements – If not already covered in the previous components, workplace substance use policies generally outline the applicable provincial/territorial and federal

¹⁷Includes employees, supervisors, unions (where applicable), human resources personnel, occupational health and safety and other medical experts, legal counsel, and any others whose input would benefit development and implementation of the policy (e.g., industry associations, testing and training companies).

regulations that apply to the organization, as well as the specific obligations they impose on employers, employees, and any others involved in addressing workplace substance use.

In addition to these components, ACOEM guidelines recommend that steps to communicate the content of the policy to all relevant workplace stakeholders be outlined. Policy statements from WorkSafe Western Australia (2008) and the Alcohol and Other Drugs Council of Australia (1996) echo this but go further, recommending that substance use policies be developed collaboratively and constructively by all key stakeholders (cited in Cercarelli et al., 2012). This point about collaborative development of policy by all workplace stakeholders was echoed in many of the reviewed documents (e.g., ACCA, n.d.; Ames & Bennett, 2011) and in interviews with key informants.

In summary, the evidence reviewed for this report indicates that cannabis-specific workplace policies are likely not required; this was also emphasized in virtually all the key informant interviews. Rather, the literature and current practice support an all-substance approach to managing cannabis in the workplace. With some review and updating to include language specific to cannabis, comprehensive substance use policies that prioritize safety and clearly prohibit impairment are likely sufficient for the time being. Organizations that do not have substance use policies in place are vulnerable to challenges.

Other considerations

There is considerable evidence that workplace-related substance use is related to a variety of individual, social, and workplace factors, including "the nature of work and the work culture, job security, working conditions, and working hours" (Cercarelli et al., 2012, p. 47; see also Ames & Bennet, 2011). This implies not only that multifaceted approaches to address workplace-related substance use are needed, but also ones that go beyond the level of individual workers and consider structural and environmental influences of the organization and sector (see the Support section below).

The research literature and our interviewees also emphasized that substance use policies do not replace good management practices, especially with respect to occupational health and safety: "Companies that have a good occupational safety and health culture, enjoyable and rewarding working conditions, quality supervision, low access to [substances] and work

cultures that do not support hazardous...use are likely to have reduced the risk of...related harm, irrespective of any...policy" (Cercarelli et al., 2012, p. 48).

Likewise, peer influence can be important in reducing risk of substance use, such as high levels of peer accountability for safety and performance and low peer tolerance for drug-affected safety and performance (Ames et al., 2000, cited in Ames & Bennett, 2011).

Issues and gaps

- CCSA's recent scan found a large number of Canadian workplaces with minimal or no workplace policies on substance use and few with comprehensive policies (Meister, in press). This leaves organizations vulnerable to problems, including challenges – formal or otherwise – that may ensue with any potential increase in cannabis use.
- While testing in Canada is legally acceptable only for safety-sensitive positions, every organization needs to consider the merits of a comprehensive policy on substance use that covers key components for their particular workplace culture and needs. Not every organization has the resources to develop a comprehensive policy, however, and there is significant potential for duplication of effort if many organizations undertake this work.
- Similarly, guidance is needed on how to effectively develop and implement workplace policies on substance use. A policy can be excellent on paper, but poor implementation – especially if rushed or imposed without engagement of workplace stakeholders – can undermine or even exacerbate workplace harms.
- There is a dearth of quality research on the nature, extent, and effectiveness of workplace policies on substance use, let alone on how to tailor them for the needs of specific sub-groups within the workplace or sector. This likely reflects the tension between practical considerations of the workplace and the need for rigorous research designs (Macdonald et al., 2010; Cercarelli et al., 2012). However, at a minimum, common indicators of success and guidelines on ways to evaluate these would enhance the knowledge base on effective policy (Meister, in press) and give employers and other workplace stakeholders more confidence in assessing the value of these policies for their own organizations.

SUBSTANCE USE TESTING

The issue of workplace testing for substance use has received extensive attention in the research literature, grey literature, and even the public discourse, particularly as it relates to cannabis. As with the rest of this paper, this section is intended to provide a brief, non-technical overview of the topic and related issues for consideration by employers and other workplace stakeholders.¹⁸

Drug testing was first instituted in the US in the 1970s, as part of the Nixon administration's War on Drugs. It became even more widespread after the introduction of the *Drug-Free Workplace Act* in 1988 for federal contractors and grantees and the US Department of Transportation's 1989 requirement for mandatory testing for safety-sensitive positions in the transport industry (Macdonald, Csiernik, Durand, Rylett, Wild, & Lloyd, 2006). While the prevalence of testing in the US has declined somewhat from its peak in the mid-1990s (Macdonald et al., 2010; Pidd & Roche, 2014), more recent surveys by the Substance Abuse and Mental Health Services Administration (SAMHSA) still show 42.9 per cent of full-time workers reported working for an employer with a drug or alcohol testing program at the pre-hire stage, and 29.6 per cent reported random workplace drug testing (Larson et al., 2007).

In contrast, only ten per cent of large work sites in Canada reported in 2003 that they had drug testing programs, and most of these were in safety-sensitive sectors (Macdonald, Csiernik, Durand, Rylett, & Wild, 2006). Reduced prevalence of testing programs in Canada reflects a number of factors: a very different regulatory environment, a "less regressive workplace environment" compared to the US (Csiernik, 2005, cited in Keay et al., 2010, p. 66), and different perceptions of the fairness of drug testing (Seijts, Skarlicki, & Gilliland, 2003, cited in Macdonald et al., 2010), especially vis-à-vis privacy rights.

Specifically, testing programs in Canada are usually adopted to minimize the likelihood of workplace accidents by identifying employees whose drug use puts safety at risk and imposing sanctions and conditions for continued employment. In the US, the purpose of testing is typically to deter employee drug

use and promote a drug-free workplace by identifying and punishing employees and applicants with drug-positive tests (Carpenter, 2007). However, Canadian law does not consider deterrence of drug use a legitimate goal (Keay et al., 2010), but rather that "punitive interventions should be rationally connected to the performance of the job" (Holmes & Richer, 2008, cited in Keay et al., 2010, p. 67).

Types of testing

Chemical testing

Typically, substance use testing involves chemical analysis of bodily fluids collected from an individual to detect psychoactive substances such as alcohol, cannabis, cocaine, opioids, benzodiazepines, and amphetamines (Macdonald, Csiernik, Durand, Rylett, Wild, & Lloyd, 2006). Unlike alcohol, however, testing procedures for drugs can usually only detect these substances once they have been metabolized in the body (i.e., metabolites versus the original 'parent' drug).

Collection can involve samples of breath (alcohol only), oral fluid (expelled saliva or swab), sweat, urine, blood, and hair. Analysis of breath samples is done at the point of collection by certified technicians, whereas other samples are typically analyzed at laboratories. The relative merits and challenges of different types of specimen testing involve cost, accuracy, possibility of adulteration, and invasiveness.¹⁹ However, new technologies are emerging to address some of these issues (Moore, 2010).

Currently, urine tests are the most frequently used by employers (Macdonald et al., 2010; Mello, 2013), although the popularity of saliva tests is growing. The advantage of saliva tests for workplace drug testing is that they are rapid, convenient, non-invasive, easy to administer but difficult to adulterate, and able to detect the actual presence of a drug – and therefore recent use – as opposed to metabolites. Drawbacks include the fact that collection devices are not standardized, specimens degrade quickly, (Moore, 2010), and they are considered to be less accurate than urine or blood tests (Kidwell & Athanasis, 1998, cited in Macdonald et al., 2010).

¹⁸ Decisions about testing policy should be guided by legal counsel and any others familiar with the regulatory requirements of the relevant jurisdiction, as well as industry standards, collective agreements, and other considerations specific to the organization and its employees.

¹⁹ In terms of both collection procedure and privacy of medical information revealed through analysis (see Van Pelt, 2017).



Laboratory test results are reported to an organization's Medical Review Officer (MRO), who interprets them in the context of company policy – either zero tolerance or "per se" cut-off limits. The latter are used to determine direct rather than passive exposure (in the case of inhalants) or level of impairment such as .08 and .05 per cent blood alcohol concentration (e.g., see COAA, 2014). A key issue with respect to cannabis, however, is that regardless of the type of test used, there is a lack of consensus on the levels of THC that indicate impairment (Institute for Work and Health, 2017).

Occasions for substance use testing in Canada include pre-employment, reasonable cause (also known as "for cause" testing) if impairment is suspected, as well as at random, post-incident, site access, and return-to-work and follow-up/post-rehabilitation (e.g., see COAA, 2014). Some personnel in federally regulated industries (e.g., pilots and railway operators) are also subject to scheduled periodic testing as part of regular medical exams to assess fitness for duty.

Functional tests

While not at all prevalent, the research literature also makes mention of functional assessments – i.e., behavioural or cognitive tests of skill, memory, and/or reaction time to assess impairment. Also known as impairment monitoring systems

A Medical Review Officer (MRO) is a licensed physician – ideally with a specialization in addiction and occupational medicine (CCSA, 2018) – who is knowledgeable about provincial/state and federal regulations on workplace substance use and impairment. In the US, MROs are certified by the Department of Health and Human Services. The MRO is responsible for conducting an independent medical evaluation (IME), which involves reviewing and verifying laboratory-confirmed positive drug tests, contacting specimen donors to ask about recent use and any legally prescribed medications, validating this through a request for documentation, and reporting positive test results to employers (Phillips et al., 2015, p. 463). MROs can also advise on the development and implementation of workplace substance use policy.

or standardized field sobriety tests, these assessments are essentially variations on what used to be known as roadside sobriety tests before the advent of the breathalyzer. Functional assessments test rapid eye movement, hand-eye coordination, or reaction times to assess impairment from all sources, including fatigue (Cercarelli et al., 2012).

Functional testing is the system currently used in Canada by law enforcement agencies to assess drug-impaired driving. Drivers demonstrating impaired performance during a standardized field sobriety test are required to undergo an additional evaluation by a Drug Recognition Expert (DRE) who is trained to detect impaired driving due to cannabis or other drugs. According to the Task Force on Cannabis Legalization and Regulation (Government of Canada, 2016), capacity for such testing is limited in Canada, and some experts have called for a general impairment test rather than one that is drug-specific.

Such effect-based tests could address many of the concerns with chemical testing of bodily fluids. A survey of a small number of US employers who had used functional tests suggested that, in some cases, testing neurological ability and impairment rather than levels of THC was well received by employees, who appreciated the focus on human safety and protection of property (Phifer, 2017). However, the very limited prevalence of these tests and the limitations of this study indicate only that this could be an area for more research.

According to a few interviewees for this paper, technology-aided functional assessments – using tablets or phone applications – are, for the most part, still in development, and their validity, reliability, and feasibility in a range of workplace settings are not yet known. As one key informant noted, such tests ought not to replace the credible assessment tools in current use, at least until extensively tested and proven. Nevertheless, they represent a promising new area and in another key informant's words, potentially, "the future" of impairment testing.

Evidence

When evaluating the effectiveness of workplace drug testing programs, there are two main outcomes of interest in the research literature: employee substance use and workplace accidents.

Usage rates

Overall drug detection rates from workplace testing declined in the US from roughly 14 to 4 per cent between 1998 and 2009/10 (Quest Diagnostics, cited in Lund, Bogstrand, & Christopherson, 2011). In addition, several large surveys conducted in the US in

the late 1990s and early 2000s found that self-reported drug use was significantly lower among employees of companies that conducted drug testing (Hoffman & Larison, 1999; SAMHSA, 1999; French, Roebuck, & Alexandre, 2004; all cited in Carpenter, 2007).

A more recent survey by Larson et al. (2007) at SAMHSA shows a similar pattern, with those who report using illicit drugs (including cannabis) in the past month less likely to work for employers who conduct either pre-employment or random alcohol and drug testing. Carpenter's (2007) re-analysis of the US national survey data found a similar significant correlation between marijuana use and workplace testing, but much less strong than in earlier studies. Like Pidd et al. (2016), Carpenter examined the type of substance use policy in use. In this case, he found that decreased rates of drug use were also correlated – albeit to a lesser degree – with comprehensive programs (i.e., written policies, employee assistance, and drug education), even in the absence of testing.

Several of these authors have cautioned that correlational studies cannot support cause-and-effect conclusions. Moreover, detection rates have risen steadily in the US in the past four years, particularly for cannabis in Colorado and Washington (Quest Diagnostics, 2017). This underscores the need to account for contextual factors – in this case, regulatory policy and social attitudes – when interpreting correlational relationships.

Accordingly, Macdonald et al.'s (2010) review reiterates that "no definitive conclusions can be drawn about the deterrent effects of [workplace] drug testing" (p. 412) on employee drug use. These authors go on to say, however, that "the preponderance of the research indicates the proportion of those who test positive most probably declines after implementation of drug testing" (p. 412). Pidd and Roche (2014) are more cautious, concluding that methodological issues limit definitive conclusions about the deterrent effects of workplace drug testing.

Accident rates

Evidence regarding the relationship between workplace testing and workplace safety is highly variable and has many limitations.²⁰ While several individual studies of workplace drug testing programs reported improved injury or accident rates, early reviews concluded they did not convincingly demonstrate

²⁰ For instance, data on workplace safety incidents such as near-misses – while important indicators of workplace safety – were not reported to the same extent in the research literature as accident and injury rates.

reductions in job accidents, primarily because study designs were of generally low quality and/or could not presume a causal relationship between testing and outcomes (Kraus, 2001; Macdonald, 1997; both cited in Macdonald, Csiernik, Durand, Rylett, & Wild, 2006).

Macdonald et al. (2010) conducted a more recent review and came to the same conclusion. Of particular concern is that studies on workplace safety and drug testing have not separated out potentially confounding effects, such as other safety improvements implemented at the same time as testing, or the overall decline in workplace injury rates in the US in the past 20 years.

The most definitive and up-to-date evidence stems from Pidd and Roche's (2014) systematic qualitative review of drug testing as a workplace safety strategy, which examined 17 US studies from 1990 to 2013.²¹ While eleven of these reported that testing was associated with a decline in accident rates, the quality of the studies was highly variable and generally limited; confounding variables were also cited as an issue.

Despite these qualifications, these authors concluded that random alcohol testing may have potential to reduce injury rates, at least in the transport industry, though they also stated it is not clear if this can be attributed to the integrity of the US Department of Transport testing program and/or the combination of testing with changes in workplace culture, peer interaction, and other strategies. Overall, however, Pidd and Roche concluded that the evidence base for the effectiveness of workplace drug testing is "at best tenuous" (2014, p. 154).

This is not to suggest there is no role for workplace drug testing for safety-sensitive positions, or that it does not help reinforce a safety culture within a workplace context. The challenges of conducting rigorous research in workplace settings can also not be underestimated. In terms of the published academic research, however, the effectiveness of workplace drug testing has not been convincingly demonstrated.

Issues and gaps

- At this point in time in Canada, workplace substance use testing is only legally relevant to safety-sensitive positions

(Christie, 2015; Communications, Energy and Paperworkers Union of Canada, Local 30 v. Irving Pulp & Paper, Ltd., [2013] 2 SCR 458, 2013 SCC 34) as defined by each organization or industry. The Supreme Court has ruled that workplace drug testing is acceptable in three situations: 1) there is reasonable cause to suspect impairment at work; 2) the employee is directly involved in a workplace accident; or 3) the employee is returning to work after treatment for substance use problems (Christie, 2015). In all three situations, however, the employer must show that abstinence is a 'bona fide occupational requirement' due to safety risks.

CCSA's review did identify a couple of instances in which workplace policies identified "decision-critical," or "risk-sensitive" positions, where continued performance depends on the ability to consistently exercise judgement and insight in the workplace, but who would not be considered "safety-sensitive" workers (Meister, in press; see also Fan, Els, Corbet, & Straube, 2016). However, it is not clear if or how testing for these positions is covered by current regulations.

- There is currently no test for impairment for substances other than alcohol – chemical tests only detect the presence of drug metabolites, not degree of impairment. Moreover, there is no equivalent to a breathalyzer for cannabis or other drugs and, unlike alcohol, there is no consensus on per se limits. This is in part because impairment can vary widely depending on the type and form of cannabis, the concentration of cannabinoids (especially THC and cannabidiol, also known as CBD), quantity consumed, manner of consumption (e.g., inhalation versus ingestion of pills or edibles), individual characteristics (height and weight, sex, and new versus experienced or chronic use),²² and whether more than one substance is consumed at the same time (e.g., alcohol can magnify the impairment effects of cannabis).

Recent ACOEM guidelines state that there is good evidence to support a blood plasma level of 5 ng/ml of THC "as one indicator with other medical signs of acute impairment from marijuana" (Phillips et al., 2015, p. 462). However, blood tests are not typically used in workplace settings because of their costs, invasive nature, and administration problems (Mello, 2013). ACOEM guidelines further state that "urine levels of THC do not correlate with impairment" (Phillips et al., 2015, p. 462).

²¹ Six other studies that looked at deterrent effects on drug use were included in the review.

²² Chronic use of cannabis may lead to better control of symptoms than new or occasional use (Phifer, 2017).

- At a practical level then, testing does not assess impairment or specify the quantity consumed. Neither, in the case of cannabis, does it distinguish between recreational use and either therapeutic use or substance use disorders (Christie, 2015; Goldsmith et al., 2015; Harker Burnhams & Parry, 2015; Phifer, 2017; Pidd & Roche, 2011; Van Pelt, 2017), both of which would be grounds for accommodation under Canadian law. Rather, testing can be a useful tool in some contexts to assess the risk of impairment and accident as part of an overall risk management strategy.
- Testing does not address other forms of impairment such as fatigue and stress, nor propensity for risk-taking, all of which can be safety risks (MacDonald et al., 2010).
- Organizations with headquarters in the US or that conduct operations in both Canada and the US will need to comply with both sets of legislation and harmonize their policies accordingly (key informant interview).
- The literature points to the very real likelihood of unintended consequences to testing, particularly when testing leads to job loss. Since workplace accidents are very often a trigger for drug testing (Kulig, 2017), testing may, in fact, lead to underreporting of accidents (Pidd & Roche, 2011), adulteration of test samples, or use of synthetic drugs that are more difficult to detect. There is also the potential for drug impairment to lead either to absenteeism or "presenteeism" (i.e., when employees come to work despite injury or illness, often resulting in lower productivity) beyond what is currently experienced with recreational alcohol use (Goldsmith et al., 2015).
- Testing can also lead to employees losing their jobs and health insurance, both of which are strong social determinants of health (Becker, Meghani, Tetrault, & Fiellin, 2014). In the US, visible minorities are tested more frequently than others (Becker et al., 2014), so testing can end up supporting systemic racism and negatively affecting the health of minorities disproportionately.

Guidance for workplaces

Until such time as research, technology, and regulation define impairment and establish a means for determining it – particularly for cannabis – Canadian organizations in safety-sensitive sectors will have to continue determining for

themselves what is acceptable risk and how to manage it, guided by ever-evolving case law. In the interim, the following emerged from our research – particularly from interviewees – as principles of good practice:

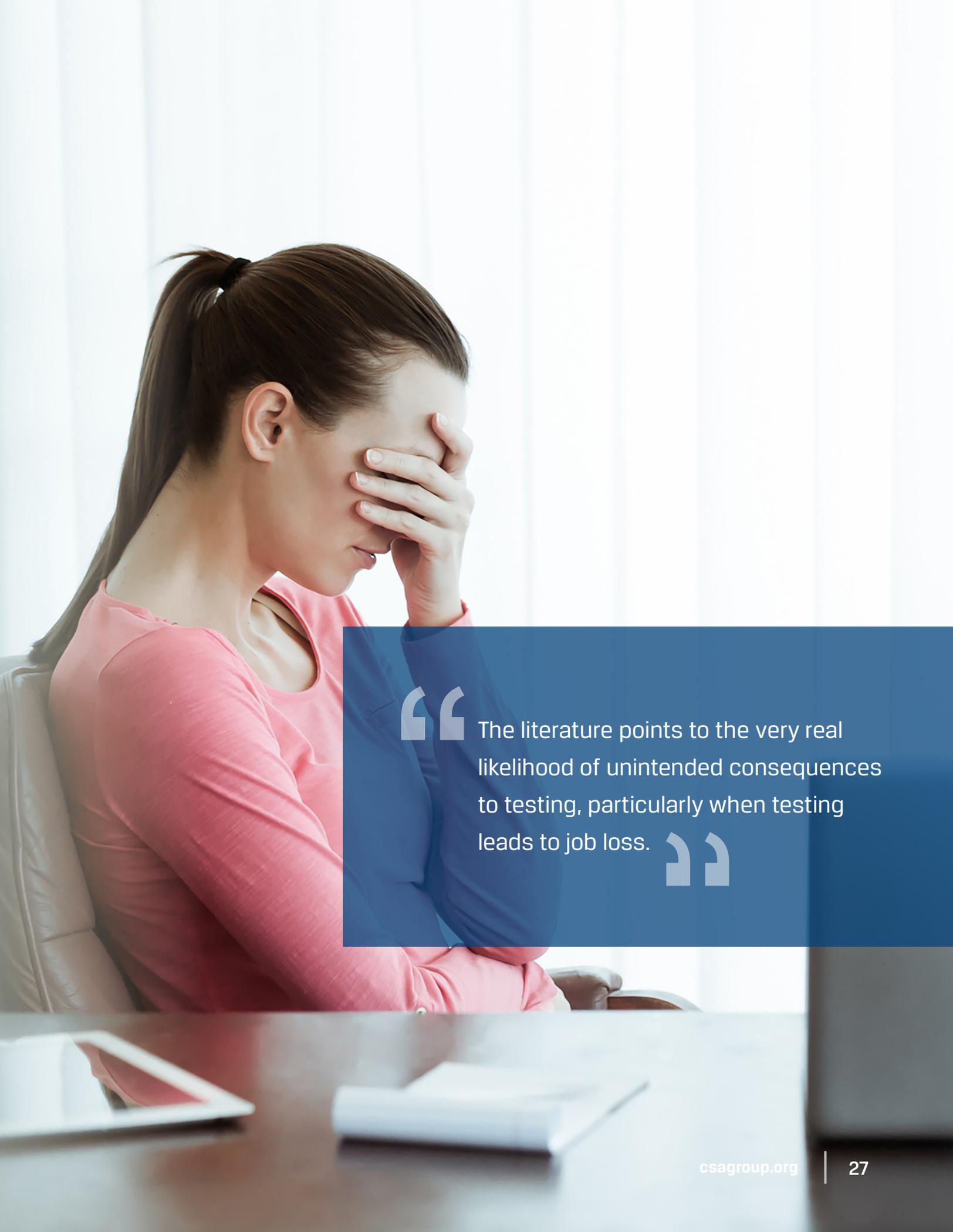
- Workplaces and sectors with a high number of safety-sensitive positions should conduct a needs assessment with respect to substance use risks and obtain legal advice on developing their substance use policies, particularly with regard to testing; these will need to be in alignment with federal and provincial/territorial regulations, industry standards, and collective agreements.
- Safety-sensitive organizations that conduct business in the US should consider aligning their policies with the US Department of Transportation regulations (including testing at laboratories certified by SAMHSA), since these are considered to meet the highest standards and therefore pose the least risk of legal challenge. Exceptions will need to be made with respect to random testing and oral fluid testing to align with Canadian law. An accredited testing company can assist with the process.
- Collaborative policy development that includes all industry stakeholders – particularly labour – is likely to be more effective in the long run and less likely to be challenged in court. Testing policy and procedures that explicitly value and protect employees' privacy, respect, and dignity will help with compliance and implementation.
- Testing is one of many ways of reinforcing a culture of health and safety. However, both those in favour of testing and those that criticize it agree that workplace drug testing needs to be combined with other actions (Harker Burnhams & Parry, 2015; Phifer, 2017), including information, education and training, and supports. Testing should also be part of an overall risk management approach that includes as many hazards and safety threats as possible.

ASSISTANCE

Types of assistance

Assistance for employees²³ on matters related to substance use includes a broad range of information, education and training, and supports such as counseling and treatment; details for all three types of assistance are provided below.

²³ In some cases, assistance can also be provided to family members, as described in the Supports section below.



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The literature points to the very real likelihood of unintended consequences to testing, particularly when testing leads to job loss.

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There is likely an equally broad range of motivations for providing these resources in conjunction with a workplace policy on substance use, whether to support effective communications and implementation of the policy (e.g., by increased engagement or compliance); to improve safety, reduce absenteeism, and improve productivity; or to support employees through difficult times, out of a sense of moral responsibility (Keay et al., 2010).

These different philosophical underpinnings and motivations will determine the relative emphasis on the different types of assistance provided (Macdonald, Csiernik, Durand, Rylett, & Wild, 2006), together with the needs, culture, and history of problems related to substance use experienced by each organization. Cost, internal capacity, and availability of external resources will also be factors.

Information

This category of assistance refers to written or online information for employees about substance use – either in general, about the organization's substance use policy, or in relation to occupational health and safety or health and well-being more generally. Several authors recommend that communication about the policy and related information be provided regularly and in a variety of formats (e.g., health and safety notices, email, bulletins, etc.), in keeping with principles of effective communications.

It is important that all employees know *where* to find related tools and resources when they need them and to be able to access them quickly and confidentially. Whether written or online, location of resources is important; multiple locations are likely more effective than one.

Education and training

For a workplace policy on substance use to be effective, all employees need to be aware of and understand it and be in a position to use or implement it as required; ideally, they will have had a say in its development as well. Education and training are tools to support substance use policy as well as a broader workplace culture that promotes everyone's health, safety, and well-being. ACOEM guidelines suggest "education is needed at hire and again at regular intervals" (Phillips et al., 2015, p. 465) to reinforce this messaging and enhance awareness.

Our research identified the following types of education and training initiatives that pertain to workplace substance use and impairment:

- **Education sessions on company AOD policy for all employees** – including workers, supervisors, and managers – to increase awareness and knowledge of the company's AOD policy and related procedures or protocols. Ideally, information about the AOD policy would be provided as part of an overall communications plan that provides supplementary information about workplace substance use (see above). These education sessions are sometimes provided by in-house personnel, such as human resources (HR), OHS, or labour representatives, or by other medical personnel with expertise in substance use, the company's legal representative, or some combination of these.
- **Education and training for employees on the impairing effects of various substances**, and associated risks and effects (e.g., on safety, personal behaviours, and job performance). Such training can include common perceptions about different substances. ACOEM guidelines (Phillips et al., 2015) also recommend that all employees be educated on how to recognize impairment in others from any source; doing so would promote *collective* responsibility for workplace health and safety. This type of training can be provided online or in-person by local public health units, Mothers Against Drunk Driving (MADD) Canada, substance use treatment providers, or other medical personnel with expertise in substance use, as well as by testing and training companies. One key informant for this study noted that having peers (i.e., others with personal experience of substance use) provide this type of training has been very effective.
- **Training for supervisors on how to identify impairment** where the focus is on the signs and symptoms of impairment, how to discuss the issue confidentially and respectfully with the employee, and how to proceed with any next steps outlined in the policy. In safety-sensitive industries, this type of training is known as reasonable cause or reasonable suspicion training, and can be part of a process that triggers testing. Regardless of the industry, however, supervisors are often well-placed to identify changes in an employees'

appearance, performance, or behaviour, and therefore to assist in fulfilling the employer's duty to inquire about substance use and how it might affect the workplace – a critical step in effective implementation of AOD policy. This type of training is often provided by industry associations, OHS or other medical personnel with expertise in substance use, union personnel, or testing and training companies.

- **Training for senior management on workplace substance use** where the focus is often more on the legal responsibilities of employees and employers with respect to workplace substance use. Often provided by legal firms or industry associations, it can also include analysis of potential legal challenges.

Our environmental scan also identified **education and training specifically on cannabis**. Much of this is available online through companies such as Safety First, Sure Hire, and Cannabis at Work. Each organization will need to determine the role of cannabis-specific training in supporting an all-substance policy.

Supports

Supports for employees regarding substance use could include informational supports (e.g., regarding community resources), referrals, counselling or other treatment, and follow-up support. ACCA's (n.d.) guide describes a comprehensive approach that includes prevention and health promotion, early identification, intervention, treatment (including residential treatment), and reintegration support, emphasizing that employers have a role in each component. Clearly, there is considerable scope within each of these areas for information, education, and training to be provided in conjunction with different types of supports.

While these supports are typically understood to be for those experiencing substance use problems, they are also provided to employees who are concerned about a co-worker or family member, and in the case of EFAPs, to family members with substance-related problems of their own.

Supports can be provided in-house (e.g., by HR or OHS personnel) or externally, such as through EAPs/EFAPs or other community service providers. EAPs are by far the most

prevalent form of assistance provided in Canada – a survey of 633 medium-sized work sites²⁴ found 68 per cent offered EAPs, and Csiernik (2005) notes these are 4.5 times more common than drug-testing programs in Canada (cited in Keay et al., 2010). Rates of any form of support or assistance appear to be much lower in Australia at roughly 18 per cent (Pidd et al., 2016) and between 36 (Ames & Bennett, 2011) and 58 per cent in the US (Larson et al., 2007).

According to Thomas (1996, cited in Cercarelli et al., 2012), there are three types of EAPs: internal, peer or co-worker-based, and those provided by an external or third-party service. EAPs typically offer short-term counselling and support to address substance use and other personal problems experienced by employees and, in the case of EFAPs, by family members. In Canada, referral to EAPs is voluntary and participation cannot be made a condition of employment (Macdonald, Csiernik, Durand, Rylett, Wild, & Lloyd, 2006).

Medical professionals and addictions experts are also key providers of supports to employers and employees. Their responsibilities typically include assessing/evaluating individuals affected or suspected to be affected by substance use/abuse, providing recovery and return-to-work prognoses, providing treatment and return-to-work recommendations, monitoring progress, and testifying at court or employment arbitration hearings (CCSA, 2017b).

Substance Abuse Professionals (SAPs) or Substance Abuse Experts (SAEs) may also play a role in the provision of workplace supports. Unlike the US where SAPs/SAEs are subject to regulation in certain sectors, there are no overarching regulations or legislation for SAPs/SAEs in Canada to carry out their work or make decisions. Accordingly, SAPs/SAEs often assume more of an assessment and monitoring role (CCSA, 2017b). Results of a recent Canadian survey of selected safety-sensitive industries (n=73) showed that most (57 per cent) identified recommendations or evaluations from SAPs/SAEs as the most common source of information in determining employees' readiness to return to work (Meister, in press).

²⁴with over 100 employees.

Evidence

There appears to be little research evidence on the extent and effectiveness of workplace-provided information, education, and training on substance use, though our search of the grey literature indicated that training programs are common for supervisors in safety-sensitive sectors.

There is slightly more evidence on workplace support programs, though much of this is about prevalence, receptiveness and satisfaction, reasons for adoption, and quality improvement rather than effectiveness. Despite its limitations, Pidd et al.'s (2016) previously-mentioned study on policy types is one of the more compelling in this respect, particularly the finding that in Australia, a workplace policy on substance use *supplemented with assistance to employees* was associated with significantly lower odds of high risk drinking.

Though scant, most of the research evidence on supports concerns Employee Assistance Programs (EAPs) or Employee and Family Assistance Programs (EFAPs). Despite their popularity, the evidence for the effectiveness of EAP programs is dated and inconclusive (Macdonald, Csiernik, Durans, Rylett, & Wild, 2006), in part due to methodological limitations that make it difficult to recommend them being adopted more widely (Webb, Shakeshaft, Sanson-Fisher, & Havard, 2009).

One of the issues is that EAPs provide very different types of interventions, including health and wellness, feedback and advice, psychosocial skills building, brief or intensive counselling, and other programs; in addition, those with more severe substance use problems are typically referred to longer or more intensive programs. It is also not clear to what extent success with one type of substance such as alcohol or tobacco translates to other substances.

Taking these limitations into account, there are grounds for optimism. Several recent reviews conclude that, in general, brief interventions appear to be effective (Ames & Bennett, 2011; Cercarelli et al., 2012; Loxley et al., 2004; Webb et al., 2009), though outcomes measures vary (e.g., attitudes, overall consumption, rates of risky use). Most of these reviews also recommend health promotion interventions such as those contained within health and lifestyle checks, as well as psycho-social skills training, and referral. They also note

promising results for web-based delivery such as personalized electronic coaching/feedback and advice (Ames & Bennett, 2011; Cercarelli et al., 2012; Webb et al., 2009).

Finally, Ames and Bennett (2011) reported promising results from a natural experiment focused on work culture and changes to the work environment, which led to dramatically reduced rates of work-related drinking. Testing against company-level outcomes such as absenteeism has also been recommended for further study (Webb et al., 2009).

Guidance for employers and other stakeholders

Rather than a piece-meal approach to adopting substance use programs, Ames and Bennett (2011) propose a framework that incorporates target group (individual, work group, or workforce), the type of program and its reach or overlap (individual, group, and environment), and program/workplace fit. While proposed to guide researchers, this framework could guide the process of needs assessment in the workplace recommended by ACCA and others (what changes are needed most and for whom) and, subsequently, decisions about the types of interventions with the greatest potential for success.

As seen in Figure 1, ACCA frames the issue of substance use that affects the workplace in a similarly holistic approach.

FIGURE 1: COMPREHENSIVE WORKPLACE HEALTH PROMOTION



Source: ACCA (n.d.), p. 12.

ACCA further recommends that supports be provided along the following continuum:

- health promotion and prevention (including stress management, healthy eating, and exercise);
- early identification (including education to recognize signs and symptoms);
- intervention (e.g., through EAP);
- treatment that includes relapse prevention; and
- reintegration (including treatment, monitoring, and aftercare).

Finally, it is worth considering how initiatives to address workplace problems related to substance use fit into a Work Disability Prevention (WDP) management approach, which promotes workplace interventions addressing injuries or illness, as distinct from those that address (existing) disabilities (WorkSafe BC, 2018). Though a full exploration of WDP is beyond the scope of this paper, the underlying assumption of this approach is that illness and injury progress into disability, but through early intervention, disability can be prevented.

The standard intervention in WDP is accommodation, whereby employers and employees make adjustments to the employer's work stream as that employee progresses through three workplace related stages of injury: workplace absence, modified work, and return to full duties. A key element to this approach is that employees and employers have continuous, open communication so that modifications to work are responsive to the emerging nature of the employee's needs with regards to the injury or illness (WorkSafe BC, 2018).

Given the focus of WDP programs on retaining injured employees and employers demonstrating individualized support, WDP management systems have potential to address the gap left by existing, disability-focused interventions (WorkSafe BC, 2018). In particular, it would be worth exploring how WDP management could help address substance-related problems in the workplace that are determined to not constitute dependence and are therefore not a disability.

Issues and gaps

- Despite the popularity of EAPs and promising evidence for their interventions, some concerns have been expressed in the literature about their costs, especially for small and medium-sized organizations, which are much less likely to have EAPs (Ames & Bennett, 2011; Macdonald, Csiernik, Durand, Rylett, Wild, & Lloyd, 2006). Other concerns include the fact that EAPs focus on individual-level interventions rather than contributing workplace factors (Ames & Bennett, 2011; Cercarelli et al., 2012), and do not address inequities – EAPs have been found to be less prevalent in workplaces with higher proportions of visible minorities (Macdonald, Csiernik, Durand, Rylett, Wild, & Lloyd, 2006). As a result, some have suggested workplaces consider ways to provide a broader range of supports – beyond just EAPs – to address substance use and related harms (Allsop, Phillips, & Calogero, 2001, cited in Cercarelli et al., 2012).
- Not only can substance use policy incorporate a health promotion and prevention approach, but it has been suggested that buy-in and support in the workplace might increase if it is integrated within an overall approach that manages other risks to health, safety, and well-being for all employees, including tobacco use, sedentary behaviour, stress management, and workplace hazards more generally (Cercarelli et al., 2012). Guidance on how to do this could add considerable value to implementation guidelines.
- As understanding grows about the nature of substance use problems and how they are experienced differently by gender, age, ethnicity, and sector/work culture, it will be increasingly important for organizations to ensure policies and programs meet the needs of employees. The research and grey literature emphasizes that denial and relapse are common, trauma and mental health disorders can be complicating factors, and stigma and shame can prevent people from seeking help. These considerations can help guide decisions about all types of assistance offered in a workplace to address substance use, whether about what information is shared and how, the content and format of education and training, and what types of supports are offered to employees.

DISCUSSION

INTERNATIONAL CONTEXT

Research for this report on international regulations and policy regarding workplace substance use revealed somewhat limited guidance for Canada with respect to the imminent legalization of cannabis. Much of Uruguay's policy infrastructure on cannabis is still in development, and while there is clearly much Canada can learn about the *implementation* experiences of US states that have legalized cannabis,²⁵ the lack of alignment between state and federal law in the US and the culture of workplace drug testing there make comparisons with Canada problematic.

Despite the fact that substance use policies vary considerably across Europe, the priority generally placed there on employees' privacy rights, occupational health and safety, as well as collaborative development of workplace policy between industry and labour, may be more relevant for Canadian workplaces than US or Australian comparisons, especially given recent case law in those jurisdictions.

CANADIAN LEGAL CONTEXT

Cannabis is unique in having its classification substantially changed under Canadian federal law.²⁶ Regardless, no law authorizes impairment in the workplace – employers and employees both have obligations with respect to substance use under provincial/territorial and federal legislation concerning occupational health and safety, human rights, and privacy.

Finding a balance between the rights of employees and employers is formidable, especially on an issue with as many contributing factors as workplace substance use and impairment.

There is undoubtedly going to be a period of regulatory flux until details of federal legislation on recreational cannabis are known and afterwards as provinces and territories develop and enact their own legislation. In the interim, guidance for organizations will continue to evolve with case law, research evidence, and technology (i.e., to assess impairment).

WORKPLACE POLICIES

There is growing interest in Canada and internationally in workplace policies on substance use as a means of preventing

or reducing related harms and costs and to promote employees' health, safety, and well-being. Policy types include 1) written policies on substance use, 2) substance use detection and testing (in some cases), and 3) assistance via information, education and training, and supports. Comprehensive policies address all three areas as applicable, but are relatively rare in Canadian workplaces except in some safety-sensitive industries, despite the protection and guidance they provide to all stakeholders. This leaves workplaces vulnerable to challenges (legal and otherwise) and a host of potential problems.

The limited research evidence suggests comprehensive policies are the most effective at deterring risky substance use. Expert opinion and current practice provide the most guidance to organizations on developing good substance use policies, which ideally include information on objectives and scope, prevention, observation and investigation, support, return to duty/work, non-compliance, review and evaluation, and legal requirements. Likewise, developing and implementing substance use policies in consultation with experts (e.g., legal counsel) and collaboration with labour, occupational health and safety, and other workplace stakeholders is considered to be best practice.

TESTING

Workplace substance use testing in Canada is much more limited than in the US, although where permitted, procedures generally adhere to US regulations (e.g., Department of Transportation). While technological advances have made testing less invasive and easier to administer, concerns about employees' privacy and human rights persist. These concerns will become even more pressing once cannabis is fully legalized, when the US model of zero tolerance – based on the assumption that all drugs are illicit – becomes largely irrelevant for that substance.

Though workplace testing may have symbolic value or other benefits, the research evidence is limited on its effectiveness in deterring substance use and particularly in reducing accidents and injuries (with the exception of alcohol testing for drivers). The lack of consensus on what constitutes impairment from cannabis and the absence of a credible and valid means of testing poses considerable challenge and concern for organizations in safety-sensitive sectors.

²⁵ particularly the first ones to do so – Colorado, Washington, and Oregon.

²⁶ albeit still as a controlled substance.



“

There is growing interest in Canada and internationally in workplace policies on substance use as a means of preventing or reducing related harms and costs and to promote employees' health, safety, and well-being.

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Functional testing of impairment is promising, but not yet fully developed, so in the interim, guidance is most likely to come from case law and provincial regulations regarding impaired driving and per se limits. More robust research is clearly needed to support policy development and organizations' decision-making on testing.

ASSISTANCE

Though policies that provide assistance to employees with substance-related problems are not as prevalent in Canada as those that outline sanctions, there are a number of education and training initiatives that complement workplace policies on substance use, especially for supervisors to identify signs of impairment and how to address it.

A comprehensive model of support suggests employers have a role in prevention and health promotion, early identification, intervention, treatment, and reintegration support for employees with substance use problems. Supports can be provided in-house by HR or medical personnel, peers or coworkers, or a third party such as an EAP provider; Substance Abuse Professionals or Experts can also act as an impartial third party to assist the process, though their profession is not regulated in Canada as it is in the US. While evidence of effectiveness is somewhat mixed, workplaces are advised to consider brief interventions that focus on health promotion, psycho-social skills training, and referral, as is web-based coaching/feedback and advice.

GAP ANALYSIS

Research for this paper revealed many complex issues with respect to workplace-related substance use, cannabis in particular. The following emerged as particularly prominent gaps, either in terms of their scope or severity, their prevalence in the literature or the frequency with which they were mentioned by stakeholders, or in terms of their practical implications for workplace stakeholders:

- **Research on cannabis is limited** – While research on cannabis is not new, the substance itself has changed considerably, meaning research evidence is still building. Unlike the knowledge gathered over 50 years of research

on alcohol, much less is known about current forms of cannabis and their implications for the workplace (CCSA, 2017; Government of Canada, 2016).

Participants in a CCSA-hosted expert and stakeholder meeting in late 2016 identified a number of research gaps in terms of basic, clinical, epidemiological, and intervention research.²⁷ Among identified priorities were determining effective approaches for the treatment of problematic use and any concurrent mental health problems; measuring and detecting impairment and impact on psychomotor performance and workplace/workforce safety; and applying knowledge to workforce development (CCSA, 2017a).

Participants at the CCSA meeting identified the need for a research coordination role to leverage resources, maintain momentum, and address knowledge gaps. In addition, there is considerable need for knowledge translation and exchange (KTE) to ensure new and emerging research evidence is shared among workplace stakeholders and informs practice across sectors and stakeholder groups.

- **Workplace policies are still rare outside safety-sensitive sectors** – Few Canadian workplaces have comprehensive policies on substance use; many have minimal or no policy at all (Meister, in press). Guidance and resources are needed to help workplaces develop and implement policies effectively. A national standard would be useful in terms of setting workplace expectations and providing guidance on critical elements of workplace policy. However, other practical tools and resources – similar to ACCA's *Problematic substance use* guide and toolkit – are also needed to help workplaces customize policy content and processes to their own unique contexts.

To ensure effective development of policies, guidelines, and programs, any materials developed should also consider how substance use affects and is experienced by different groups of workers (e.g., by gender, age, ethnicity, and sector/work culture) and to address the effects of substance use on co-workers. This could include odour from smoke residue or other means of use (e.g., medicinal creams) and consider adaptations for scent-free workplace policies.

²⁷ including the effects of cannabis use on brain and behaviour, and on mental health; effects on psychomotor performance, impaired driving, and detection; effective health promotion and harm prevention; interaction with social determinants of health, psychosocial impacts, and epidemiology of use.

- **Testing plays a limited role** – Testing is a complicated issue in the Canadian context. Not only is there currently no credible test for impairment for substances other than alcohol or for other forms of impairment such as fatigue and stress, but there is also a lack of clarity on the interaction between employee rights and employer responsibilities vis-à-vis testing in different workplace contexts. Key informants also reported that there is a thriving industry focusing on subverting the results of chemical drug testing, illustrating the long-term challenges of this approach.

Workplaces will need guidance regarding the degree to which testing can or should be part of a comprehensive approach to developing a workplace safety culture (e.g., keeping abreast of emerging case law, research, and regulations regarding per se limits to define impairment), and how to go about integrating testing policy and procedures accordingly. Organizations that operate jointly in the Canada and the US may also need assistance to ensure their testing practices comply with both countries' legislation once cannabis is legalized.

- **Programs and supports have a limited but promising evidence base** – Although EAPs are a popular source of assistance for employees and show promise of effectiveness, concerns exist about their costs, their focus on individual interventions rather than workplace factors, and their failure to address inequities. More robust research and evaluation is needed to demonstrate for whom they are effective, in what contexts, and how they work best.

A broader range of supports may be needed overall to effectively address workplace-related substance use issues. Some organizations will no doubt need assistance determining the right mix of supports to maximize workplace health, safety, and employee wellbeing, and assessing the effectiveness of return-to-work and reintegration programs.

- **Balancing legal and regulatory issues** – The legislative and regulatory framework for substance use will likely remain in flux for some time following the legalization of recreational cannabis in summer 2018. Figuring out how to strike a balance between employers' responsibilities and

employees' rights may be complicated and expensive, and will no doubt vary across different workplace contexts; there is considerable scope for duplication of effort. Likewise, there are gaps in knowledge about the interplay between federal and provincial/territorial laws and regulations, how these affect organizations that operate across jurisdictions and for contingent workforces (those shifting from full-time employees to contractors).

As legal decisions and regulations emerge on these issues, there will be a role for one or more organizations to synthesize, curate, and disseminate accessible information for workplace stakeholders. Potential vehicles include convening key stakeholders (e.g., industry associations, regulators, and others such as MHCC), producing high-level summary documents, and disseminating these via an online repository, to ensure all interested parties remain up-to-date on evolving legislation, case law, and regulations.

CONCLUSIONS

There is some question as to how much of a direct effect legalization of recreational cannabis will have on Canadian workplaces (HRInsider, 2018). Several people interviewed for this report indicated that the potential impact of upcoming legalization on workplaces is likely overstated, and that cannabis use will not dramatically increase. If usage rates do increase, however – as they have in Colorado and Washington – there may well be higher rates of absenteeism, presenteeism, and impairment, and hence, increased risk of accident and injury, and related disability and benefit costs. There could also be negative effects on employee health, particularly from heavy or chronic use.

Even so, the research literature is clear that the burden of alcohol and tobacco use is far greater than that attributable to illegal substances. Not only is alcohol use far more prevalent,²⁸ but a study by CCSA (2016) found that by virtually every measure, the societal costs of alcohol exceeded that of all illegal drugs, in most cases by roughly double.²⁹

²⁸ According to the 2015 CTADS, 77 per cent of Canadians reported past-year alcohol use compared to 12 per cent for cannabis (Statistics Canada, 2017).

Whether cannabis usage increases or not, there is an existing 'suite' of legislation, industry standards, and policies in Canada that already addresses workplace-related substance use in terms of both safety and accommodation, regardless of the specific substance involved. Provided workplace policies are comprehensive and up to date on definitions of impairment and applicable substances – notably, to include cannabis – the evidence³⁰ suggests these should be adequate to address the issue of both therapeutic and recreational cannabis use in the majority of Canadian workplaces.

Accordingly, this report concludes that no separate set of workplace rules or policies is needed to address impairment from drugs as opposed to other substances; in fact, cannabis-specific workplace policies were seldom mentioned in the research literature or by interviewees. An all-substance approach will also provide guidance on addressing impairment related to *concurrent* substance use (e.g., alcohol together with cannabis or other drugs) and potentially, other forms of impairment as well, notably fatigue or stress.

There was considerable support among interviewees for development of a national standard on workplace policies on substance use. Many said a large number of organizations would benefit from guidance on both the content and process of developing workplace policies, and how to implement them. Small and medium-sized organizations and those *not* operating in safety-sensitive sectors were identified as potentially deriving the most benefit, since the others have had to address this issue some time ago.

Benefits of a national standard on workplace-related substance use could include more consistent approaches to testing across organizations or industries; more consistent, built-in protection of human rights and occupational health and safety (Van Pelt, 2017), and greater availability and take-up of supports to employees. Greater harmonization of policies across industries would also benefit those working for more than one employer, an increasingly common scenario among digital/knowledge workers, construction workers, and part-time workers.

The number of gaps identified in this report point to the complexity of the issue of workplace-related substance use, and the challenge of developing a national standard should not be underestimated. However, an evidence-informed, collaborative process that engages multiple workplace stakeholders and perspectives would help promote the idea that workplace-related substance use is a shared issue of concern and responsibility, and be a model for those developing such policies in their own workplaces.

²⁹ The only exception was productivity loss due to short-term disability, which estimated 21.8 bed days due to illegal drugs versus 15.9 days for alcohol.

³⁰ The research evidence reviewed for this report and input from many key informants.



STANDARDS

COMPLIANCE



The challenge of developing a national standard should not be underestimated. An evidence-informed, collaborative process that engages multiple workplace stakeholders and perspectives would help promote the idea that workplace-related substance use is a shared issue of concern and responsibility.



LAW

POLICIES

KEY RESOURCES

The following are key resources consulted in the development of this paper which provide practical guidance for workplace stakeholders. See the References section for a complete list of sources.

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- Other sample policies are available from industry associations, HR associations, training and testing companies, and cannabis lobby groups.

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APPENDIX A:

LITERATURE REVIEW AND ENVIRONMENTAL SCAN SEARCH TERMS

TABLE 2: SEARCH TERMS

DOMAIN	TERMS
Place	(workplace OR "work environment" OR office) AND
Action	(safe* OR impair* OR "medical users" OR use OR abuse) AND (cannabis OR marijuana OR substance OR opioid OR drug OR cannabinoid) AND
Intervention	(policy OR guideline OR program OR testing OR procedure OR detect OR measure OR "best practices" OR training OR education OR accommodation OR recruitment OR retention OR return-to-work) ("standards based solutions" OR "work disability prevention management system" OR "WDP-MS" OR "work disability prevention" OR "WDP" OR "substance abuse (professionals OR experts)" OR (SAP OR SAE) OR "safety-sensitive" OR "non-safety-sensitive" OR "employee assistance program" OR "EAP")

APPENDIX B:

KEY INFORMANT INTERVIEWS

Individuals from the following organizations provided reflection and insight in key informant interviews as part of the research for this paper:

- Canadian Association of Administrators of Labour Legislation Occupational Health and Safety (CAALL-OSH) Committee
- Canadian Centre on Substance Use and Addiction (CCSA)
- Canadian Construction Association
- Canadian Institute for Substance Use Research (formerly Centre for Addictions Research BC)
- Canadian Occupational Health Nurses Association (COHNA)
- Canadian Union of Public Employees (CUPE)
- CannAmm Occupational Testing Services
- Construction Owners Association of Alberta
- ENFORM/ Energy Safety Canada
- Institute for Work and Health (IWH)
- Mental Health Commission of Canada (MHCC)
- Workplace Safety North (WSN)

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