

Alcohol and Drug Use in Alberta's Oil and Gas Industry



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Introduction

This brief report provides information on substance use in Alberta's oil and gas industry. Understanding the rates of substance use within this industry may help employers and industry leaders respond more efficiently to their employees' needs.

Limitations and research considerations

Caution should be exercised when interpreting the results in this report as the number of responses from oil and gas industry workers were low in some instances, and therefore may not be representative of all oil and gas workers in Alberta.

Surveys about substance use tend to have shown under-reporting from participants (Flight, 2007). Previous research has also shown that although overall prevalence rates of substance use by the general population decline during periods of economic downturn, prevalence rates of harmful substance use (e.g., binge drinking, frequency of marijuana use) increase among vulnerable subgroups, like those who have lost their jobs or have been unemployed long-term (Bor, Basu, Coutts, McKee, & Stuckler, 2013; Dom et al., 2016; Goldman-Mellor, Saxton, & Catalano, 2010; Kalusova, & Burgard, 2014). Considering that the oil and gas industry in Alberta is especially vulnerable to boom-and-bust cycles, and rates of substance use tend to be under-reported, actual rates of substance use among workers in this industry could be higher than what is stated in this report.

It should also be noted that data from the oil and gas industry was last collected in 2009. Although up-to-date statistics are not currently available for this population, previous studies have shown that prevalence rates related to substance use are unlikely to change drastically long-term (Canadian Centre on Substance Use [CCSA], 2014; CCSA, 2016). Thus, the rates of overall substance use stated in this report are unlikely to have changed significantly since the data was collected.

Please refer to page 6 for information about how this report was prepared.

Demographics

Data from the 2009 Labour Force Survey was used to determine the number of workers in Alberta, and the number of workers in the oil and gas industry. In Alberta, 2,029,800 people aged 15 and older were employed and 6.7% of those were employed in the oil and gas industry. A higher percentage of oil and gas workers were between the ages of 25 and 54 compared to the province overall. See Table 1 for employment data by age group.

Table 1. Total number of employees in Alberta, 2009

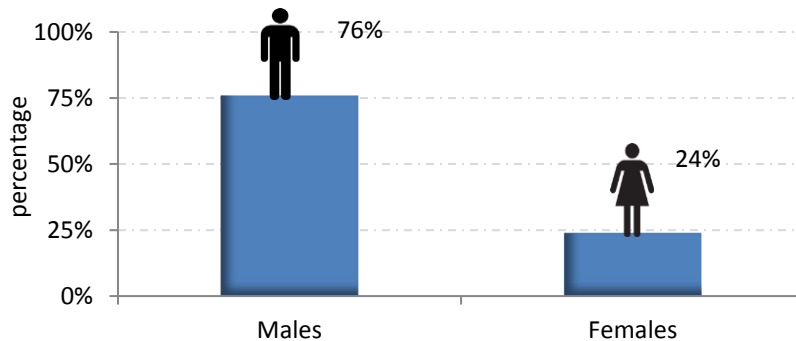
Age Characteristics	Employment in Alberta ¹		Employment in Oil & Gas ²	
	Number	%	Number	%
15-24 years	326,500	16.1	17,300	12.9
25-54 years	1,385,000	68.2	103,400	77.1
55 years and older	318,300	15.7	13,400	10.0
Total	2,029,800	100%	134,100	100%

¹ Statistics Canada. Table 282-0002 - Labour force survey estimates (LFS), by sex and detailed age group, annual (persons unless otherwise noted), CANSIM (database). (accessed: 2016-09-27)

² Statistics Canada. Table 282-0008 - Labour force survey estimates (LFS), by North American Industry Classification System (NAICS), sex and age group, annual (persons unless otherwise noted), CANSIM (database). (accessed: 2016-09-27)

In 2009, 54.5% of those who were employed in Alberta were males and 45.5% were females. In comparison, more than three-quarters (76.0%) of those employed in the oil and gas industry were males, and one-quarter (24.0%) were females (Figure 1).

Figure 1: Oil and gas industry employees by gender, Alberta, 2009



Source: Statistics Canada. Table 282-0008 - Labour force survey estimates (LFS), by North American Industry Classification System (NAICS), sex and age group, annual (persons unless otherwise noted), CANSIM (database). (accessed: 2016-09-27)

Substance Use

Data on rates of substance use within Alberta and the oil and gas industry was used from the Alberta Survey of Addictive Behaviours and Mental Health in the Workforce: 2009.

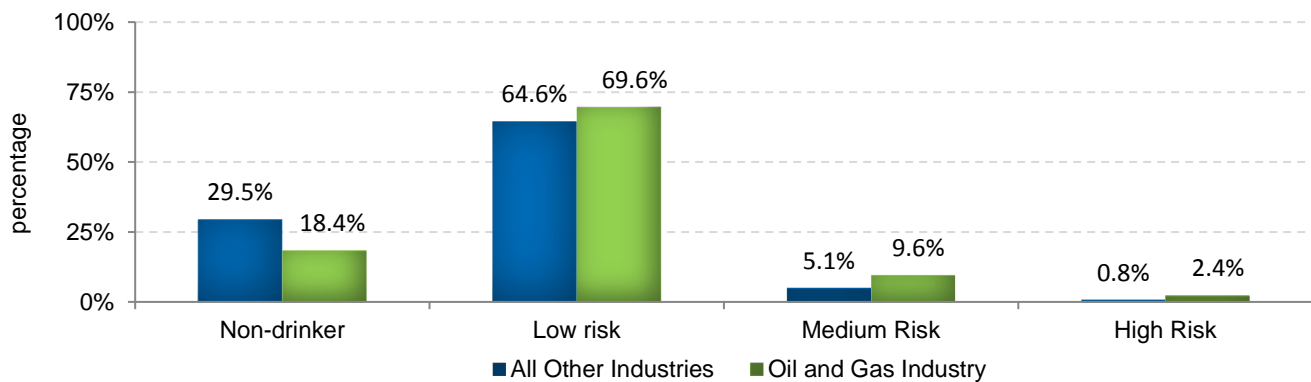
Alcohol Use

Alcohol is the substance most commonly used by Alberta workers. Oil and gas industry workers had significantly higher rates of alcohol use in the previous 12 months compared to the average for all other industries; 81.7% and 71.5%, respectively. The majority of those who drank were considered to be at low-risk for hazardous or harmful drinking.

Rates of risky drinking behaviours were measured within the survey by the Alcohol Use Disorders Identification Test (AUDIT). The AUDIT was developed as a simple method of screening for excessive drinking and to assist in brief assessment; drinkers whose scores are in the medium or high risk category are more likely to be alcohol dependent, and to exhibit hazardous drinking behaviours (i.e., consuming alcohol in ways that increase the risk of harm to the user or others) (Babor, Higgins-Biddle, Saunders & Monteiro, 2001).

As shown in Figure 2, the percentage of oil and gas industry workers who were at medium or high risk of harmful or hazardous alcohol use was significantly higher compared to the average of all other industries.

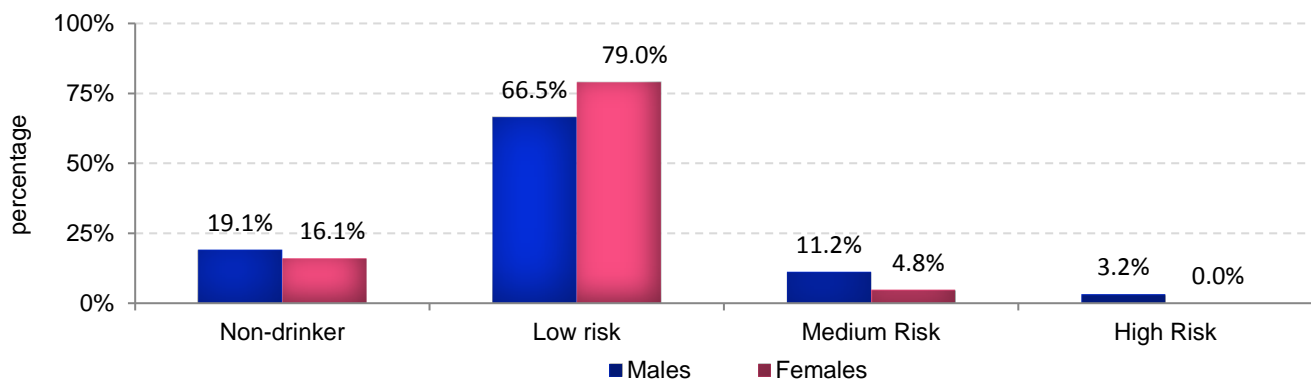
Figure 2: AUDIT scores among Alberta workers, 2009



Source: Alberta Survey of Addictive Behaviours and Mental Health in the Workforce: 2009
All other industries n=2189; Oil and Gas Industry n=250; p=.000

As shown in Figure 3, men were more likely to be classified as medium or high risk for experiencing harmful or hazardous drinking, while women in the oil and gas industry were more likely to be classified as low risk for experiencing of harmful or hazardous drinking.

Figure 3: Reported AUDIT scores by gender in Alberta’s oil and gas industry, 2009



Source: Alberta Survey of Addictive Behaviours and Mental Health in the Workforce: 2009
Men n=188; Women n=62

Illicit Drug Use

Workers in the oil and gas industry have similar rates of reported drug use in the previous 12 months compared to the average for all other industries; 7.0% and 6.6%, respectively.

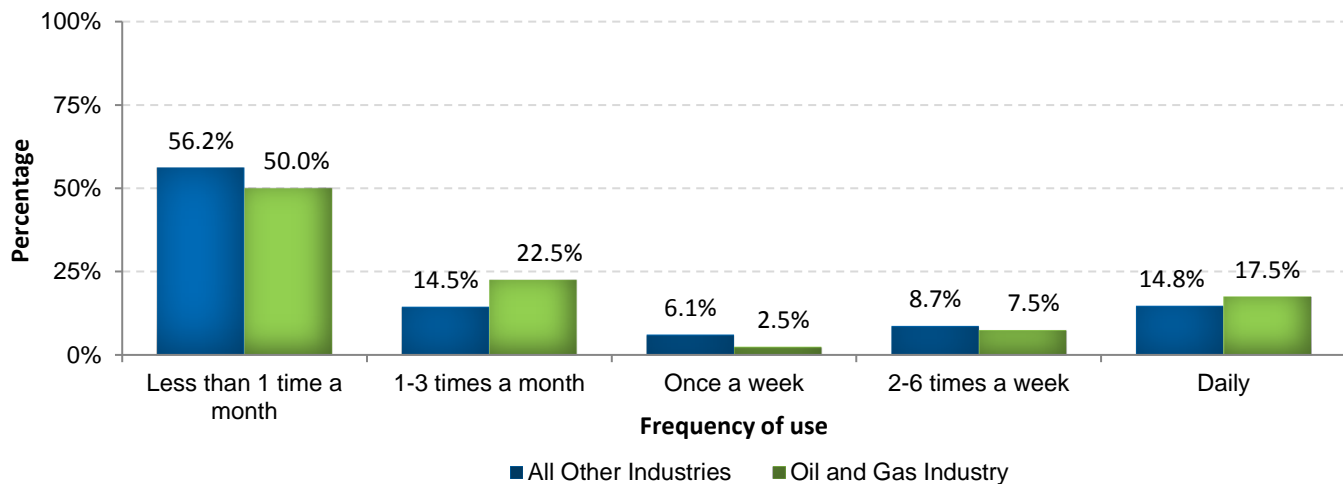
Among the oil and gas workers (7.0%) and Alberta workers (6.6%) who reported that they used illicit drugs in the previous 12 months, the rates of marijuana usage in each group were almost identical (100% and 99.2%, respectively). Too few oil and gas workers completed the survey to be able to report how often they used marijuana.

Although marijuana and hashish use was commonly reported by Alberta workers who used illicit drugs, reported rates of use of other illicit drugs (i.e., cocaine, hallucinogens, amphetamines, and opiates) were too low to report.

Prescription Drug Use

The rate of prescription painkiller use among oil and gas workers (16.7%) was similar to the Alberta average (14.2%). Among those who indicated they used prescription painkillers, 50.0% of oil and gas workers, and 56.2% of other Albertans used them less than once a month (see Figure 4).

Figure 4: Reported frequency of use of prescription painkillers, Alberta, 2009



Source: Alberta Survey of Addictive Behaviours and Mental Health in the Workforce: 2009
All other industries n=298; Oil and Gas Industry n=40

Over-the-counter Stimulant Use

Rates of over-the-counter stimulant use were analyzed; however, the number of cases were too low to report.

Discussion

Workers in the oil and gas industry are slightly younger and predominantly male when compared to the average for all industries in Alberta. These may be important factors to consider when determining how to tailor prevention and intervention initiatives for this industry.

Alcohol use among Alberta's oil and gas workers tends to be greater than the average. Oil and gas workers who used alcohol were more likely to use it in harmful or hazardous ways (e.g., use alcohol more frequently, consume more on one occasion, experience alcohol-related injuries). Men in the oil and gas industry were more likely to use alcohol in harmful or hazardous ways, compared to women in the oil and gas industry. Campaigns focusing on reducing risky-drinking behaviour may be especially beneficial to oil and gas workers. Resources may focus on promoting low-risk drinking behaviours. Canada's Low-Risk Alcohol Drinking Guidelines were created to help Canadians moderate their alcohol consumption and reduce their immediate and long-term alcohol-related harm (Butt et al., 2011). A copy of the guides well as numerous resources (e.g., posters and infographics) are available for free on the Canadian Centre on Substance Abuse (CCSA) website.¹

Both groups had similar rates of illicit drug use, with marijuana or hashish being the most frequently-reported drug used. The Lower Risk Cannabis Use Guidelines (LRCUG) were proposed in Canada in 2011. Research indicates that the majority of harms associated with use of marijuana are experienced by users who are at high-risk (e.g., started using marijuana before the age of 16, has a family history of psychosis) or who use it in high-risk ways (Fisher, Rehm, Irving, Ialomiteanu, Fallu & Patra, 2010). For example, the risk of harm increases as frequency of use of marijuana increases, when marijuana is used in combination with tobacco, and when marijuana is used prior to operating a motor vehicle. The guidelines provide the following recommendations for reducing risk of harm associated with marijuana use that may be most relevant for workplace prevention or intervention efforts: avoid frequent use (i.e., daily or near-daily use), avoid use of both tobacco and marijuana, avoid driving for a minimum of 3-4 hours after use, and seek help if controlling use is a problem (Fischer, Jeffries, Hall, Room, Golner & Rehm, 2011). Although resources similar to Canada's Low-Risk Alcohol Drinking Guidelines are not yet available, further development of safe marijuana use resources for employers is anticipated with the expected legalization of recreational marijuana in Canada.

Employers in the oil and gas industry who have concerns about employee health, wellness, or safety, may also consider campaigns targeted to younger males in their workforce. Such campaigns could promote any wellness programs being offered through their organization, or the use of Employee and Family Assistance Programs (EFAPs) if they are available. Many EFAPs offer free services to help with substance use or addiction problems, and some employees may not be aware of these services, or that the services are confidential.

¹ CCSA Low Risk Drinking Guidelines: <http://www.ccsa.ca/Eng/topics/alcohol/drinking-guidelines/Pages/default.aspx>

Appendix A: Methods

Employment rates for Alberta overall, and the oil and gas industry specifically, were taken from Statistics Canada's 2009 Labour Force Survey. In 2011, The Institute of Health Economics published *The Alberta Survey of Addictive Behaviours and Mental Health in the Workforce: 2009* (Thompson, Jacobs, & Dewa, 2011). The survey provided prevalence rates of substance use and mental health concerns among employed Albertans aged 18 years and older. Access to the data was provided to Alberta Health Services, which was used to conduct secondary analysis specific to the oil and gas industry.

The data was weighted by sex and age group to more accurately represent the population. Caution should also be exercised when interpreting the results in this report as many responses from oil and gas industry workers were low, and may not be representative of all oil and gas workers in Alberta.

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