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\_\_\_\_\_ **Research Report** \_\_\_\_\_

**Characteristics, Institutional  
Adjustment, and Post-Release  
Success of Drug and Alcohol Users**

Ce rapport est également disponible en français. Pour en obtenir un exemplaire, veuillez vous adresser à la Direction de la recherche, Service correctionnel du Canada, 340, avenue Laurier Ouest, Ottawa (Ontario) K1A 0P9.

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**Characteristics, Institutional Adjustment, and Post-Release Success of Drug and Alcohol  
Users**

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## Executive Summary

**Key words:** *institutional adjustment, substance abuse, post-release outcomes, offender behaviour*

Research has demonstrated that rates of drug use and misuse within incarcerated populations are much higher than those seen in the general population. In addition, a body of research literature has pointed to the link between type of substance abuse (i.e., drug vs. alcohol) and type of crime committed, with alcohol users tending to commit more violent crimes than drug users. Beyond the drug-crime link, relatively little research has been done to further examine differences between types of substance users.

This study examined the characteristics, indicators of institutional adjustment, and post-release outcomes among a retrospective cohort of federal men offenders who completed the Computerized Assessment of Substance Abuse (CASA) between April 1, 2006 and March 31, 2009. To be included in the sample, offenders had to report a moderate to severe problem on at least one of the two standardized measures within the CASA that are used to assess severity of alcohol dependence and drug abuse. This sample ( $N = 3,514$ ) was categorized into three groups depending on their ratings on the Alcohol Dependence Scale and Drug Abuse Screening Test: the alcohol users group, the drug users group, and the alcohol and drug users group.

The majority of the sample (82%) was classified as drug users, 12% were alcohol users, and 6% were alcohol and drug users. Offenders in the alcohol users group were older than the other two groups at the time of admission, were more likely to be serving a first federal sentence and, overall, had a longer sentence for their current offence(s). In addition, the alcohol and the alcohol and drug users groups were more likely than the drug users group to commit a violent crime or a sex-related crime. In comparison, the drug users group was more likely to be convicted of an acquisitive crime, such as theft, compared to the alcohol users and the alcohol and drug users.

The drug users group had the most disciplinary charges, were more likely to have a positive urinalysis result, and were more likely to refuse to provide a sample, compared to offenders in the other two groups. The alcohol and drug group spent the most days in segregation, followed by the drug users and the alcohol users. Drug users were more likely to be released on discretionary release compared to the other two groups. However, drug users were slightly more likely to be returned to custody within 24 months compared to the other two groups. Across all groups, offenders were frequently returned to custody for a technical violation; however, drug users had the highest proportion of returns for the commission of a new offence.

The results of this study expand upon previous research in this area regarding differences between alcohol and drug users. In addition, the study explored some novel research questions by comparing the behaviour of different types of substance users while incarcerated and their post-release outcomes. An increased understanding of the characteristics and behaviour of alcohol users and drug users while incarcerated and while under supervision in the community can assist in the effective management of offenders.



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## Introduction

Substance abuse is a major public health problem that affects society on multiple levels. The impact of substance abuse on individual health, family functioning, health care utilization, and offending has been well-established (Boland, Henderson, & Baker, 1998; Kelley & Fals-Stewart, 2004; Oesterle et al., 2004; Pernanen, Cousineau, Brochu, & Sun, 2002; Public Health Agency of Canada, 2007; Rhem et al., 2006).

Rates of drug use and misuse within incarcerated populations are much higher than those seen in the general population. Fazel, Bains, and Doll's (2006) review of substance abuse in incarcerated offenders, which considered findings from the United States, England, Ireland, and New Zealand, found that up to 60% of offenders exhibited a drug dependence problem upon intake. A US study by Lo and Stephens (2000) concluded that more than half of a sample of incoming offenders was in need of treatment for at least one substance. In England, a study by Bullock (2003) categorized inmates into *non-problematic users*, *problematic users*, and *acutely problematic users* based on their frequency of use in the year prior to custody. Using these classifications, 65% of the sample was categorized as acutely problematic users, 18% as problematic users and a further 17% as non-problematic users. Within the Canadian federal correctional population, 70% to 80% of the general offender population and almost all Aboriginal offenders have an identified substance abuse problem requiring some level of intervention (Grant & Gileno, 2008; Grant, Kunic, MacPherson, McKeown & Hansen, 2003; Weekes, Moser & Langevin, 1999).

In addition to a high prevalence of substance abuse problems, there is a direct link between substance misuse and criminal behaviour for a significant proportion of incarcerated offenders. For example, according to the United States Bureau of Justice Statistics (BJS), in 2004, 33% of state inmates and 19% of federal inmates used alcohol at the time of their offence, while 32% of state inmates and 26% of federal inmates used drugs (BJS, 2004; Mumola & Karberg, 2006). An Australian study of incarcerated men revealed that 62% of men offenders had been intoxicated at the time of their most serious offence (Makkai & Payne, 2003). In Canada, approximately 50% of federal offenders under the Correctional Service Canada's (CSC) supervision identified substance abuse as a contributing factor in their current offence(s) (Kunic & Grant, 2006). Also, Pernanen and colleagues (2002) found that half of men offenders entering

Canadian federal or provincial corrections had been under the influence of substances at the time they committed their most serious current offence compared to slightly less than half of women offenders entering provincial corrections.

Within the incarcerated population, drug users differ from non-drug using populations in a number of ways. In particular, drug users tend to be younger, have fewer educational qualifications, have lower rates of employment, and have more difficulties in obtaining permanent housing. In addition, drug users experience a higher proportion of previous episodes of self-injury and past psychiatric treatment (Brooke, Taylor, Gunn, & Maden, 2000). Although drug use significantly declines during incarceration, recent use of heroin, cocaine, and amphetamines has been associated with the continued use of these drugs while incarcerated (Strang et al., 2006).

Few studies have examined differences among various types of substance users. Mangrum and Spence (2005) found that primary alcohol users were older, more likely to be married, more likely to be employed, had higher education levels, and fewer psychosocial problems than those who abused alcohol and drugs. Similarly, Gossop, Marsden, and Stewart (2002) found that patients who were dependent on both alcohol and drugs reported more physical and psychological health problems than patients with primarily a drug abuse problem. In an examination of substance-abusing offenders, Hodgins and Lightfoot (1988) found that drug abusers were more likely than alcohol abusers or non-abusers to have financial problems or emotional health issues. Offenders who abused both alcohol and drugs were more likely than any of the other groups to have problems related to their finances or emotional health.

The link between substance use and offending has been the focus of much study and therefore been well-established. It has been suggested that addictive behaviour may lead to offending, or that certain factors predispose individuals to both substance misuse and criminal behaviour, or that offending may be a method used to sustain addiction (Gossop, Marsden, Stewart, & Rolfe, 2000). Although the specific nature of the drug-crime relationship is complex, the use of certain substances has been found to be related to certain types of crime. In particular, many studies have established a link between alcohol use and violent offending (Boles & Miotto, 2003; Haggard-Grann, Hallqvist, Langstrom, & Moller, 2006; Hoaken & Stewart, 2003; Parker & Auerhahn, 1998; Pernanen et al., 2002). In fact, a review of the literature on the link between substance abuse and offending indicated that alcohol is the substance most frequently cited as

being related to aggressive and violent behaviour (Boles & Miotto, 2003; Pernanen et al., 2002). While other drug abuse, particularly amphetamine, methamphetamine, and cocaine use, has also been linked to violence, it has been suggested that the relationship is not as strong as the relationship between alcohol and violence (Boles & Miotto, 2003; Parker & Auerhahn, 1998; Stewart, Gossop, Marsden, Stewart, & Rolfe, 2000). However, the relationship between drug abuse and acquisitive crimes has been explored within the literature. Drug users are much more likely than the general population to commit acquisitive crimes. In particular, the regular use of drugs such as heroin and cocaine has been associated with income-generating crime (Gossop et al., 2000). Hodgins and Lightfoot (1998) found that drug abusing offenders were more likely than non-abusing offenders, alcohol abusing offenders, or offenders who abused both drugs and alcohol, to commit acquisitive crimes such as break and enter, theft, robbery, fraud, or forgery.

Although the link between substance abuse and offending has been well documented in the literature, relatively few studies have focused on the impact that substance abuse has on offender behaviour within correctional facilities. A recent study of 34 American correctional facilities found that the quantity of alcohol recently consumed and the frequency of recent drug use were correlated with a greater probability of violence among offenders (Sacks et al., 2009). A history of drug abuse, particularly cocaine use, was also associated with an increase in disciplinary problems requiring segregation in a study of offenders in England and Wales (Stewart, 2009). In studies that directly measured institutional adjustment among substance abusers, cannabis users were found to have the best adjustment rates, while cocaine users were found to have the worst adjustment rates (Edwards, 1995). In terms of continuation of drug use within correctional facilities, compared to cocaine and amphetamine users, heroin users have been demonstrated to be more likely to persist using (Strang et al., 2006).

Research has suggested that a history of drug and/or alcohol use is correlated to the rate of disciplinary infractions while incarcerated, in addition to other individual level characteristics, such as age and criminal history (Flanagan, 1983; Gendreau, Goggin & Law, 1997; Jiang, 2005; Jiang & Fisher-Giorlando, 2002; Jiang, Fisher-Giorlando, & Mo, 2005; Serin, & Hanby, 2010; Steiner & Woolredge, 2008). Jiang (2005) found that pre-incarceration drug use history was associated with offender disciplinary misconduct, especially rule violations related to substance use, although it was unclear of the potential impact of the drug type used. The findings in research by Jiang and Fisher-Giorlando (2002) and Jiang, Fisher-Giorlando, and Mo (2005)

suggest that inmates identifying use of drugs and/or alcohol pre-incarceration committed more violent infractions than offenders reporting no or little pre-incarceration use.

Several recent reports have found that offenders with pre-incarceration substance use problems are more likely to return to custody during a supervised release than offenders who do not have substance use problems. In an examination of return to custody for participants in the Women Offender Substance Abuse Program, 36% of all women offenders with a moderate-severe substance use problem were returned to custody during the 52-week follow-up period compared to 22% of none/intermediate-severity women offenders (Matheson, Doherty, & Grant, 2008). Similarly, Kunic and Varis (2009) found that returns to custody were higher for Aboriginal offenders recommended to a moderate- or high-intensity substance abuse program compared to those with no substance abuse problem identified. Furthermore, research suggests a dose-response relationship between substance abuse severity and returns to custody during a period of supervised release with the days spent in the community on release decreasing as the level of substance abuse severity increased (Farrell MacDonald, manuscript submitted).

## **Purpose and Rationale**

The purpose of this study is to provide a profile of men offenders with an identified moderate-severe substance use problem within the Canadian federal corrections system. Research demonstrates differences in demographic and offence history profiles, depending on the type of substance used most frequently. Also, research suggests that substance use issues may have an impact on offender behaviour during incarceration and successful community reintegration on release. As such, the focus on differences between types of users can serve to highlight the heterogeneity in this population, thereby contributing to an understanding of possible responsivity factors that can assist in devising optimal operational and management practices for these sub-groups. The report examines the differences between three types of substance users (alcohol users, drug users, and alcohol and drug users) on demographic characteristics, measures of institutional adjustment, and measures of post-release success.

The present study poses the following research questions:

1. How do the three groups (alcohol users, drug users, and alcohol and drug users) differ in their demographic profile and criminal history?
2. How do the three groups differ in their institutional adjustment (i.e., institutional

- disciplinary charges, segregation, and random urinalysis results)?
3. How do the three groups differ with respect to post-release supervision (i.e., types of release, proportion returning to custody, reasons for returning to custody, and duration of time under community supervision)?

## Method

### Sample

The study utilized a retrospective cohort of federal men offenders who completed the Computerized Assessment of Substance Abuse (CASA) between April 1, 2006 and March 31, 2009. The CASA is an assessment designed to identify offenders' substance abuse problems at the time of admission to federal custody (Kunic, 2006; Kunic & Grant, 2006). To be included in the sample, offenders had to be newly admitted into a federal institution and had to have completed the CASA within 180 days of the start of their sentence. Offenders assessed with an overall moderate, substantial, or severe substance abuse problem were included in the sample ( $n = 3,514$ ) and were classified into one of three groups: 1) offenders who were drug users ( $n = 2,876$ ); 2) offenders who were alcohol users ( $n = 434$ ); or 3) offenders who were both alcohol and drug users ( $n = 204$ ).

### Data Sources

Two standardized measures of substance use and misuse from the CASA were used to categorize types of substance users: the Alcohol Dependence Scale (ADS; Skinner & Horn, 1984) and the Drug Abuse Screening Test (DAST; Skinner, 1982). These scales classify problems with alcohol and drugs into the following groups: *none, low, moderate, substantial, or severe*.<sup>1</sup> As mentioned, to be retained in this sample, offenders had to report a moderate to severe problem on the ADS and/or DAST. The primary problematic substance of use, or type of user, was determined by the specific ADS and DAST scores. If the DAST classification (moderate, substantial, or severe) was equivalent to the ADS classification, the offender was included in the alcohol and drug group. If the ADS classification was more severe than the DAST score, offenders were included in the alcohol group. If the DAST classification was more severe than the ADS classification, offenders were included in the drug group. The distribution of ADS and DAST ratings for each of the three types of substance users is reported in Table 1.

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<sup>1</sup> It should be noted that since the ADS measures dependence on alcohol and the DAST measures drug abuse, the ADS is a much more stringent tool than the DAST. That is, a high score on the ADS is indicative of a more severe problem than a high score on the DAST. Although the tools do not classify people with the same level of problems, the current study chose to treat the tools similarly in accordance with CSC's use of the tools for substance abuse program assignment.

Table 1 ADS and DAST Scores by Study Group

	Drug Users (n = 2,876)		Alcohol & Drug Users (n = 204)		Alcohol Users (n = 434)	
	%	(n)	%	(n)	%	(n)
<b>ADS</b>						
None/low	91.7	(2638)				
Moderate	7.0	(200)	43.6	(89)	47.7	(207)
Substantial	1.3	(38)	30.9	(63)	32.7	(142)
Severe			25.5	(52)	19.6	(85)
<b>DAST</b>						
None/low					77.9	(338)
Moderate	36.7	(1054)	43.6	(89)	15.2	(66)
Substantial	44.7	(1284)	30.9	(63)	6.9	(30)
Severe	18.7	(538)	25.5	(52)		

Note. ADS = Alcohol Dependence Scale. DAST = Drug Abuse Screening Test.

The Offender Management System (OMS) is an electronic administrative and operational database used by CSC to maintain all offender records from sentencing commencement to sentence end. The OMS was used in the present study to obtain all data of interest.

## Measures

**Demographic characteristics.** General demographic characteristics such as age at admission, marital status, and Aboriginal ancestry were examined across the three study groups.

**Sentence and offence information.** Level of involvement with the federal correctional system was measured using a categorical examination of number of sentences served, current sentence length, mean number of current offences, and mean number of previous offences.

**Criminogenic variables.** The Offender Intake Assessment (OIA) incorporates a variety of information sources and assessments to systematically identify and analyze critical factors that affect the safe and timely reintegration of each offender into the community. The core components of the OIA include the Assessment of Static Factors (criminal history risk) and the Dynamic Factor Identification and Analysis protocol (CSC, 2007).

The assessment of static factors includes consideration of historical factors such as criminal history, offence severity, and sex offence history. Parole officers assign offenders an

overall static risk level of *low*, *moderate*, or *high* based on their review of the static factor analysis. The dynamic risk factors or needs assessment provides a rating for seven domains: employment, marital/family, associates, substance abuse, community functioning, personal/emotional, and attitude. Unlike static factors, these risk factors are subject to change in response to correctional programming and intervention. Offenders are rated on a four-point scale for each domain<sup>2</sup> (factor rated as an asset to community adjustment, no immediate need for improvement, some need for improvement, considerable need for improvement) and are also assigned an overall need rating of *low*, *moderate*, or *high* based on the extent of the dynamic risk factors (Brown & Motiuk, 2005).

The Revised Statistical Information on Recidivism Scale (SIR-R1), also assessed during the OIA process, is an actuarial tool for predicting the risk of re-offending among federally sentenced non-Aboriginal men during the first three years after release from federal custody (Nafekh & Motiuk, 2002).<sup>3</sup> The 15-item scale is used to classify offenders into one of five possible risk categories: *very good* risk; *good* risk; *fair* risk; *fair/poor* risk; and *poor* risk.

Motivation level provides an indication of the offenders' readiness and willingness to participate in programming and interventions to address their criminogenic needs, availability of external support, and past history related to demonstrating change. This OIA variable is also measured on a three-point scale: *low*; *moderate*; and *high* (CSC, 2012a).

Reintegration potential is a rating used to assess the prospective success an offender will have in returning to the community and for Non-Aboriginal men is based on an algorithm that includes the offender's security classification (Custody Rating Scale or CRS rating; CSC, 2012b), static factor rating of the OIA, and SIR-R score. The reintegration potential rating for women and all Aboriginal offenders is based on the CRS rating, the static factor rating of the OIA, and the dynamic factor rating of the OIA. Offenders are assigned a level of *low*, *moderate*, and *high* in this area.

**Institutional adjustment indicators**<sup>4</sup>. Data on the institutional adjustment indicators were examined from admission to release date, warrant expiry date (i.e., end of sentence) or the

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<sup>2</sup> The substance abuse and the personal/emotional orientation domains are rated on a three-point scale ranging from *no need for improvement* to *considerable need for improvement* (these domains cannot be rated as *factor seen as an asset to community adjustment*).

<sup>3</sup> This scale has not been validated for women or Aboriginal persons and is therefore unavailable for these groups.

<sup>4</sup> Although program completion was considered in the current study, the groups did not significantly differ in the likelihood of successfully completing a substance program. These results are not presented in the current report.

end of the study's observation period (October 12, 2010).

***Disciplinary charges.*** Information on minor and serious disciplinary charges that inmates incurred as a result of a disciplinary offence was examined. Several general categories of disciplinary offences are captured within the OMS including: disobey order and/or written rule, disrespectful or abusive toward staff, possession or dealing of contraband, possession of unauthorized items, charges related to urinalysis results, or other violent or non-violent charges. For the purpose of this report, only disciplinary charges for which offenders were found guilty were included in the analyses.

***Random urinalysis program test results.*** CSC randomly selects 5% of offenders per month to participate in the random urinalysis program. The proportion of urinalysis samples that resulted in a positive result or instances where the offender refused to provide a sample were examined across groups. The types of drugs found for positive samples were also explored.

***Segregation.*** Three types of segregation transfers were examined, including involuntary, voluntary, and disciplinary segregation.

***Returns to custody.*** Returns to custody were examined for all offenders released for either discretionary (i.e., day or full parole) or statutory release. Data for return to custody were examined from release to readmission date, warrant expiry date (i.e., end of sentence), or the end of the study's observation period (October 12, 2010), for a maximum of 24 months.

## **Statistical Analyses**

Frequency distributions and cross-tabulations were calculated for the categorical variables. Means and standard deviations were calculated for the continuous variables. The relationships between categorical variables were examined using Pearson Chi-Square. Where relationships between variables were statistically significant, Cramer's *V* was also examined to assess the strength of the association. Cramer's *V* values were categorized into a weak association when values were less than .10, small association when values were between .10 and .30, moderate association when values were between .30 and .50, and strong association when values were at the .50 level or higher (AcaStat, 2012). In cases where significant differences were found across the three groups, post-hoc two-by-two cross-tabulations and chi-square tests were performed. Differences between groups on continuous variables were analyzed using analysis of variance (ANOVA). Pairwise post-hoc comparisons were examined for statistically

significant results.

To examine outcomes that were count variables (i.e., number of charges, number of days in segregation) across groups, incidence rates were calculated and incident rate ratios were used to determine between-group differences. The incident rate ratio represents the proportional increase (or decrease) in the incidence rate for a unit change in the predictor. For example, for the comparisons involving institutional charges, if the incident rate ratio was 1.5, it suggests that the incidence rate of incurring an institutional charge was 1.5 times higher for one group of offenders compared to the reference group of offenders. An incident rate ratio of 1.0 indicates no difference in the incidence rate between the reference category and the comparison category.

## Results

### Sample Characteristics

Drug users accounted for the greatest proportion of the sample (81.8%) followed by alcohol users (12.4%), and alcohol and drug users (5.8%). Demographic characteristics of the three groups are presented in Table 2. Compared across study groups, a lower proportion of drug users were Aboriginal offenders while the alcohol group had the highest proportion of Aboriginal offenders. The alcohol user group was older than the other two groups at the time of admission (alcohol users group:  $M = 36.8$  years,  $SD = 11.4$ ; drug users group:  $M = 33.8$ ,  $SD = 8.9$ ; alcohol and drug users group:  $M = 33.3$ ,  $SD = 10.0$ ;  $F(2, 3514) = 20.34$ ,  $p < .0001$ ). Over half of the sample was single in all study groups.

Table 2  
*Demographic Characteristics by Study Group*

	Drug Users ( $n = 2,876$ )		Alcohol & Drug Users ( $n = 204$ )		Alcohol Users ( $n = 434$ )		$V$
	%	( $n$ )	%	( $n$ )	%	( $n$ )	
Ethnicity <sup>b</sup>							.15***
Caucasian	79.0	(2,273)	59.8	(122)	61.3	(266)	
Aboriginal	12.1	(347)	28.9	(59)	32.5	(141)	
Black	4.2	(120)	3.9	(8)	3.5	(15)	
Other <sup>c</sup>	4.7	(136)	7.4	(15)	2.7	(12)	
Marital Status <sup>de</sup>							.06***
Single	53.5	(1,533)	56.9	(116)	52.9	(228)	
Currently Married	38.4	(1,099)	31.9	(65)	33.0	(142)	
Previously Married	8.1	(232)	11.3	(23)	14.2	(61)	

*Note.* <sup>a</sup> significant ( $p < .05$ ) differences between all three groups; <sup>b</sup> significant ( $p < .05$ ) differences between drug users and other two groups; <sup>c</sup> Other includes Arab/West Asian, Asiatic, Chinese, Filipino, Japanese, Korean, Latin American, South Asian, South East Asian, other, and unknown/missing; <sup>d</sup> significant ( $p < .05$ ) differences between drug users and alcohol users group; <sup>e</sup>  $n = 12$  missing from the drug users group and  $n = 3$  missing from the alcohol users groups.

\*\*\*  $p < .001$

As shown in Table 3, the criminal history of the drug users group was more extensive than the other groups. Drug users committed significantly more offences for both their current ( $F(2, 3514) = 27.42$ ,  $p < .0001$ ) and previous ( $F(2, 1415) = 5.21$ ,  $p = .006$ ) sentences compared to

alcohol users or alcohol and drug users and were more likely to be serving a subsequent federal sentence (42.1% vs. 30.0% or 36.3%). In addition, sentence length differed across the groups with a greater proportion of the alcohol users serving six or more years than the drug user group (13.8% vs. 9.3%).

Table 3  
*Sentence and Offence Information by Study Group*

	Drug Users (n = 2876)		Alcohol & Drug Users (n = 204)		Alcohol Users (n = 434)		V
	%	(n)	%	(n)	%	(n)	
Sentence Number (categories) <sup>a</sup>							.06***
1	57.9	(1665)	63.7	(130)	70.1	(304)	
2	22.7	(653)	18.6	(38)	14.3	(62)	
3 or higher	19.4	(558)	17.7	(36)	15.7	(68)	
Sentence Length <sup>b</sup>							.05**
2-4 years	77.1	(2216)	75.0	(153)	76.0	(330)	
4-6 years	13.6	(392)	12.8	(26)	10.1	(44)	
6-10 year	5.9	(170)	4.9	(10)	7.1	(31)	
Over 10 years	3.4	(98)	7.4	(15)	6.7	(29)	
Number of Current Offences M(SD) <sup>b***</sup>	7.4	(8.3)	5.4	(5.6)	4.7	(4.9)	
Number of Previous Offences M(SD) <sup>c**</sup>	16.2	(17.5)	10.5	(11.7)	13.0	(21.4)	

Note. <sup>a</sup> significant ( $p < .05$ ) differences between drug users and alcohol users groups; <sup>b</sup> significant ( $p < .05$ ) differences between drug users and other two groups; <sup>c</sup> significant ( $p < .05$ ) differences between drug users and alcohol and drug users groups.  
\*\*  $p = .01$ , \*\*\*  $p = .001$

Current offence types were examined for the three groups and are presented in Table 4. Significant differences were found across a number of offence types. In particular, the combined alcohol and drug users and the alcohol users committed significantly more violent crimes, such as homicide, sex-related crimes, and assault, compared to the drug users. The drug users committed significantly more acquisitive crimes, such as theft/break and enter and fraud/forgery, than the other two groups. Furthermore, the drug user group was more likely to commit drug trade or drug use type offences, even compared to the alcohol and drug user group.

Table 4  
*Current Offence Types by Study Group*

Offence Type	Drug Users		Alcohol & Drug Users		Alcohol Users		V
	(n = 2,876)		(n = 204)		(n = 434)		
	%	(n)	%	(n)	%	(n)	
Homicide <sup>a</sup>	5.0	(145)	10.3	(21)	15.4	(67)	.14***
Sex-related <sup>a</sup>	4.9	(140)	13.2	(27)	19.4	(84)	.19***
Robbery <sup>b</sup>	33.5	(964)	32.4	(66)	17.5	(76)	.11***
Drug Use <sup>a</sup>	13.5	(388)	3.9	(8)	1.8	(8)	.13***
Drug Trade <sup>a</sup>	20.0	(575)	9.8	(20)	6.9	(30)	.12***
Assault <sup>a</sup>	21.8	(626)	38.7	(79)	36.2	(157)	.14***
Theft/Break & Enter <sup>c</sup>	56.1	(1613)	38.2	(78)	29.7	(129)	.19***
Fraud/Forgery <sup>a</sup>	10.7	(309)	5.4	(11)	5.1	(22)	.07***
Kidnapping	5.4	(155)	7.4	(15)	5.8	(25)	
Escape	4.7	(136)	2.5	(5)	3.2	(14)	
Other Violent Offences <sup>de</sup>	22.7	(654)	30.4	(62)	23.3	(101)	.04*
Non-Violent Offences <sup>f</sup>	63.7	(1832)	60.3	(123)	59.0	(256)	

Note. <sup>a</sup> significant ( $p < .05$ ) differences between drug users and other two groups; <sup>b</sup> significant ( $p < .05$ ) differences between alcohol users and other two groups; <sup>c</sup> significant ( $p < .05$ ) differences between all three groups; <sup>d</sup> significant ( $p < .05$ ) differences between drug users and alcohol and drug users groups; <sup>e</sup> Other Violent offences include arson, intimidation, extortion, uttering threats, and weapons offences; <sup>f</sup> Non-violent crimes include: breach of recognizance, contempt of court, fail to comply, mischief, motor vehicle related offences, obstruct justice, violation of provincial statutes, solicitation, trespassing.  
 \*  $p = .05$ , \*\*\*  $p < .001$

Group differences were found on SIR-R ratings. Post-hoc comparisons revealed a significant difference for alcohol users compared to drug users with drug users assessed as higher risk to re-offend compared to alcohol users, although the association was weak. No significant differences were found between the study groups with respect to static risk, need, motivation

level, or reintegration potential ratings, as shown in Table 5.

Table 5  
*Offender Intake Assessment Information by Study Group*

	Drug Users (n = 2876)		Alcohol & Drug Users (n = 204)		Alcohol Users (n = 434)		V
	%	(n)	%	(n)	%	(n)	
<b>Risk</b>							
Low	7.7	(218)	6.9	(14)	8.2	(35)	
Moderate	45.2	(1278)	41.6	(84)	40.1	(172)	
High	47.1	(1330)	51.5	(104)	51.8	(222)	
<b>Need</b>							
Low	1.7	(48)	1.5	(3)	1.6	(7)	
Moderate	25.7	(727)	20.3	(41)	24.2	(104)	
High	72.6	(2051)	78.2	(158)	74.1	(318)	
<b>Reintegration Potential</b>							
Low	38.0	(1074)	46.5	(94)	37.8	(162)	
Moderate	31.5	(889)	27.2	(55)	33.1	(142)	
High	30.5	(863)	26.2	(53)	29.1	(125)	
<b>Motivation Level</b>							
Low	10.5	(296)	11.9	(24)	9.6	(41)	
Moderate	71.7	(2026)	69.8	(141)	73.7	(316)	
High	17.8	(504)	18.3	(37)	16.8	(72)	
<b>SIR-R1<sup>ab</sup></b>							
Poor or Fair/Poor	53.8	(1340)	50.4	(71)	41.1	(118)	.07***
Fair	19.0	(473)	15.6	(22)	17.8	(51)	
Good or Very Good	27.3	(679)	34.0	(48)	41.1	(118)	

*Note.* Missing data: Risk, need, motivation level, reintegration potential - 5 from the alcohol group, 50 from the drug group, and 2 from the alcohol and drug group; SIR - R1 - Among Non-Aboriginal offenders, 37 from the drug group, 6 from the alcohol group, and 4 from the alcohol and drug group.

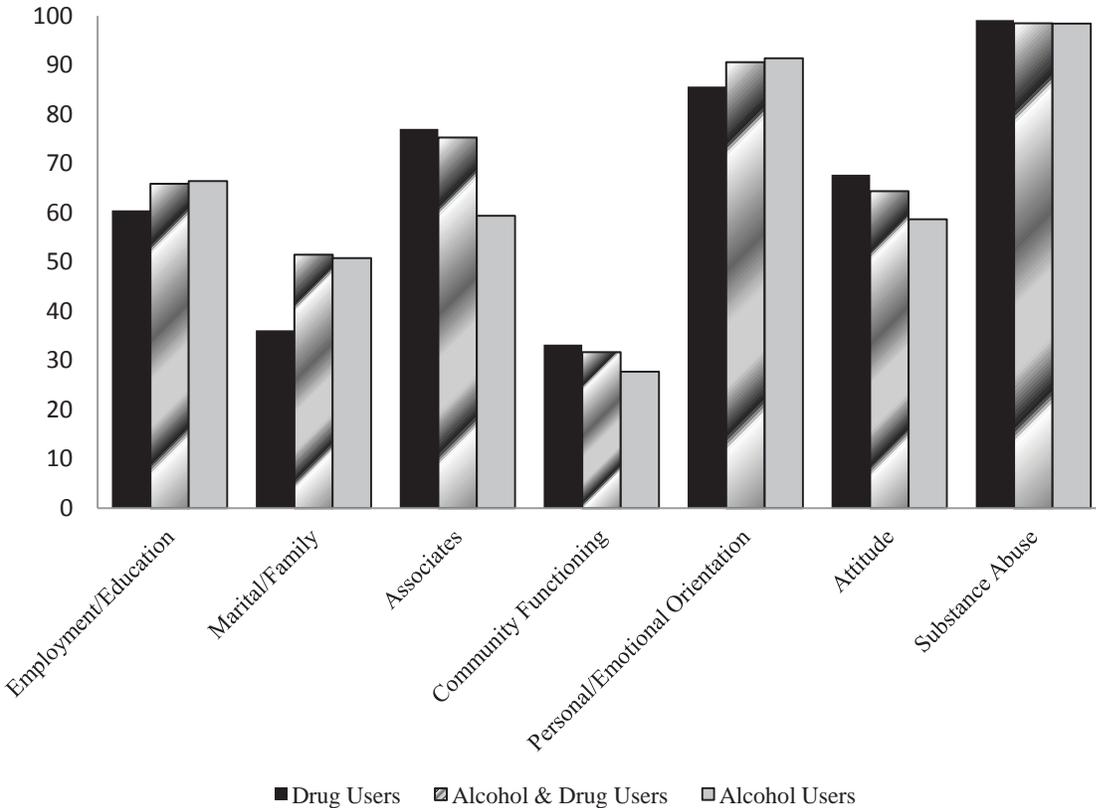
<sup>a</sup> significant ( $p < .05$ ) differences between drug users and alcohol and drug users groups; <sup>b</sup> The SIR-R1 is not applicable for Aboriginal offenders.

\*\*\*  $p < .001$

Figure 1 compares the three groups on the level of need across several criminogenic need areas measured during the offender intake assessment. Overall significance testing revealed group differences in need levels in all domains with the exception of substance abuse and community functioning. Offenders in the alcohol user group were least likely to have an

identified need on the associates domain (59.4% compared to 77.0% for drug users and 75.3% for alcohol and drug users) while those in the drug user group were least likely to have an identified need on the marital/family domain (36.1% compared to 51.5% for alcohol and drug users and 50.8% for alcohol users).

Figure 1. Percentage of offenders identified as having some or considerable need in criminogenic need areas by study group



Note.  $n = 50$  missing from the drug group.  $n = 2$  missing from the alcohol and drug group, and  $n = 5$  missing from the alcohol group. Employment/Education:  $V = .05^*$ ; Marital/Family:  $V = .12^{***}$ ; Associates:  $V = .13^{***}$ ; Personal/Emotional Orientation:  $V = .06^{**}$ ; Attitude:  $V = .06^{***}$   
 $*** p < .001$

### Institutional Charges

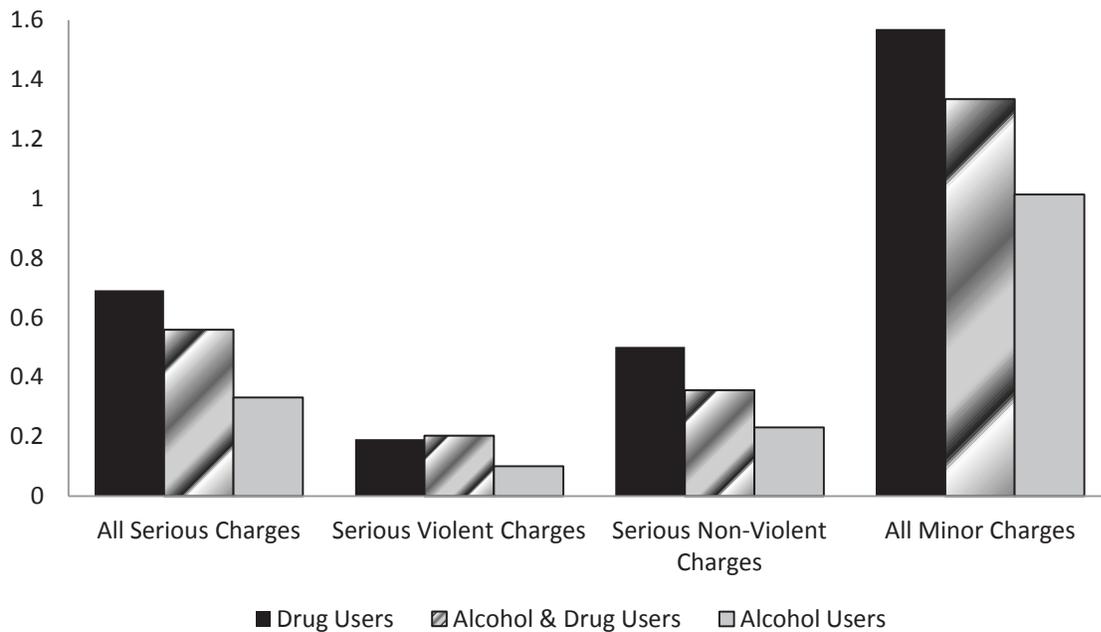
Fewer than half (37%) of the offenders in the total sample had a conviction for a serious charge during the observation period. Of those with at least one serious charge conviction, approximately half had only one such conviction. Sixty-three percent of offenders had at least one minor charge conviction during the observation period.

Incidence rates, corrected for time at risk, were computed for minor and serious

institutional charges for each of the groups (Figure 2). Figure 2 also shows the examination of violent and non-violent serious charges across study group. Offenders in the drug group had the highest rate of serious charges (0.692), followed by offenders in the alcohol and drug group (0.559), and offenders in the alcohol group (0.331). Looking at serious violent charges, offenders in the combined alcohol and drug group had the highest rate (0.203), followed closely by offenders in the drug group (0.191), then offenders in the alcohol group (0.100). For serious non-violent charges, offenders in the drug group had the highest rate (0.501), followed by offenders in the alcohol and drug group (0.356), and offenders in the alcohol group (0.231). For minor charges, offenders in the drug group also had the highest rate (1.570), followed by offenders in the alcohol and drug group (1.334), and offenders in the alcohol group (1.014).

Incidence rates for institutional charges were compared for each of the groups by calculating incidence rate ratios (*IRR*; see Appendix A). For the most part, all three groups significantly differed from each other in rates of institutional charges. Specifically, for serious institutional charges, offenders in the alcohol group were less likely to incur a charge than offenders in the drug group (*IRR* = 0.48, 95% CI [0.42, 0.54]) or the alcohol and drug group (*IRR* = 0.59, 95% CI [0.49, 0.71]), and offenders in the drug group were 24% more likely than offenders in the alcohol and drug group to incur a serious institutional charge (95% CI [1.08, 1.43]). For serious violent institutional charges, offenders in the alcohol group were half as likely to incur a charge as offenders in the drug group (*IRR* = 0.52, 95% CI [0.41, 0.66]) or the alcohol and drug group (*IRR* = 0.49, 95% CI [0.35, 0.68]). For serious non-violent institutional charges, offenders in the alcohol group were less likely to incur a charge than offenders in the drug group (*IRR* = 0.46, 95% CI [0.39, 0.54]) or the alcohol and drug group (*IRR* = 0.65, 95% CI [0.52, 0.82]), and offenders in the drug group were 41% more likely than offenders in the alcohol and drug group to incur a serious non-violent charge (95% CI [1.18, 1.69]). Similarly, for minor institutional charges, offenders in the alcohol group were less likely to commit a minor charge than offenders in the drug group (*IRR* = 0.64, 95% CI [0.60, 0.70]) or the alcohol and drug group (*IRR* = 0.76, 95% CI [0.68, 0.85]).

Figure 2. Incident rates of serious and minor disciplinary charges by study group



## Urinalysis

The frequency of random urinalysis requests that were positive and refused were compared across groups. Overall, the groups differed for each of these results. Offenders in the drug group were more likely to have one or more positive result (13.8%) or adjusted<sup>5</sup> positive result (13.6%) compared to offenders in the alcohol and drug group (positive: 11.5%; adjusted positive: 12.5%), and the alcohol group (positive: 5.9%;  $X^2(2,1852) = 12.40, p = .002, V = .08$ ; adjusted positive: 6.3%;  $X^2(2,1627) = 9.98, p = .0068, V = .08$ ).<sup>6</sup> Offenders in the drug group (13.5%) were more likely than offenders in the alcohol and drug group (8.0%) and the alcohol group (6.3%) to refuse one or more urinalysis requests ( $X^2(2,1852) = 12.55, p = .0019, V = .08$ ). Post hoc comparisons showed that the drug users group was significantly more likely than the alcohol users group to have a positive urinalysis result or to refuse a urinalysis request. In post-hoc comparisons, the alcohol and drug users group did not significantly differ from either of the other two groups.

The frequency of type of drug found in random urinalysis positive results was examined across groups (Table 6). Frequencies were too low for statistical testing. The highest proportion

<sup>5</sup> An offender may not always complete a requested urinalysis (i.e., refusal), therefore an adjusted percentage of positive test results was included to account for the difference between the number of tests that were actually completed compared to the positive test category which examines all the tests that were requested.

<sup>6</sup> It should be noted that CSC currently does not have a urinalysis test for alcohol.

of urinalysis results positive for opioids were found in the drug group (23.5%), followed closely by the alcohol and drug group (23.1%), then the alcohol group (13.3%). No illicit methadone use was found among alcohol users, but 7.7% of positive tests in the alcohol and drug group and 8.3% in the drug only group were positive for illicit methadone use. Offenders in the alcohol group had the highest proportion of THC found (86.7%), followed by offenders in the alcohol and drug group (69.2%), and the drug only group (69.1%). There were no positive tests for cocaine found for offenders in the alcohol and drug group and the alcohol only group, but cocaine was found in 4.4% of positive urinalysis samples in the drug only group. Amphetamine use was low overall, with no positive tests of this drug found in the alcohol and drug group and alcohol group, and just 1.5% found in positive urinalysis samples in the drug group. Similarly, no benzodiazepines were found in tests for the alcohol and drug group and the alcohol only group, and just 2.9% of positive urinalysis samples in the drug group were positive for benzodiazepines.

Table 6  
*Drugs Found in Positive Urinalysis Result by Drug Type, Considering only Positive Results*

<i>Drugs Found</i>	Drug Users ( <i>n</i> = 224)		Alcohol & Drug Users ( <i>n</i> = 13)		Alcohol Users ( <i>n</i> = 15)	
	%	( <i>n</i> )	%	( <i>n</i> )	%	( <i>n</i> )
THC	69.1	(141)	69.2	(9)	86.7	(13)
Cocaine	4.4	(9)	0.0	(0)	0.0	(0)
Amphetamines	1.5	(3)	0.0	(0)	0.0	(0)
Benzodiazepines	2.9	(6)	0.0	(0)	0.0	(0)
Opioids	23.5	(48)	23.1	(3)	13.3	(2)
Illicit Methadone	8.3	(17)	7.7	(1)	0.0	(0)

*Note.* THC = Tetrahydrocannabinol.

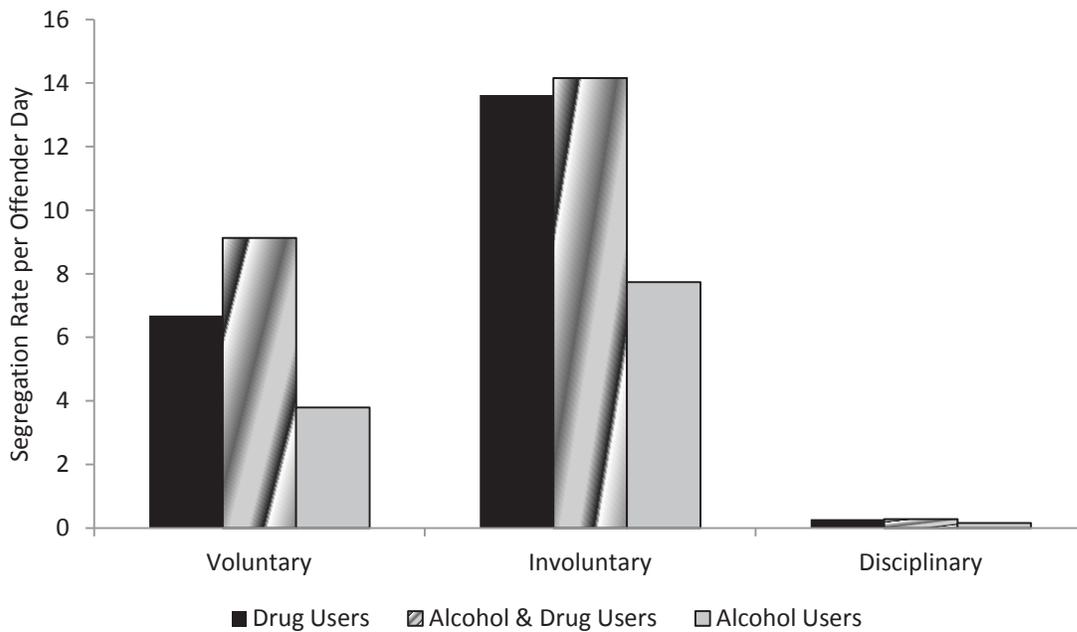
### **Segregation**

A transfer to segregation was a relatively rare event for offenders in the current sample. During the study period, 13% of the study sample spent at least one day in voluntary segregation, 32% served at least one day in involuntary segregation, and 3% spent at least one day in disciplinary segregation.

Incidence rates were computed for time spent in each type of segregation for each of the groups, adjusted to account for the fact that when an offender was serving time in segregation, he

was not considered to be at risk for segregation. Results presented in Figure 3 demonstrate that voluntary and involuntary segregation rates are lower for the alcohol users groups than for either the drug user or alcohol and drug users groups (voluntary segregation: 3.79 days compared to 6.68 days and 9.13 days, respectively; involuntary: 7.74 days compared to 13.62 days and 14.16 days, respectively). Post-hoc comparisons showed significant differences between all three groups for voluntary and involuntary segregation. Very few offenders spent time in segregation for disciplinary reasons, regardless of group (see Figure 3). Post-hoc comparisons showed that those in the alcohol users group had lower rates of disciplinary segregation (0.16 days) than those in the drug users group (0.28 days) or the alcohol and drug users group (0.28 days).

Figure 3. Segregation rates by study group



### Release types

First release type was examined across study groups and is presented in Table 7. Offenders in the drug users group were more likely to have been released on discretionary release than offenders in the alcohol and drug user group or the alcohol users group, indicating a lower level of perceived risk to the community.

Table 7  
*Release Type by Study Group*

Release Type	Drug Users ( <i>n</i> = 2,157)		Alcohol & Drug Users ( <i>n</i> = 135)		Alcohol Users ( <i>n</i> = 290)		<i>V</i>
	%	( <i>n</i> )	%	( <i>n</i> )	%	( <i>n</i> )	
Discretionary	45.0	(970)	30.4	(41)	31.4	(91)	.10***
Statutory	55.0	(1187)	69.6	(94)	68.6	(199)	

\*\*\* *p* < .001

### Returns to Custody

The proportion of offenders in each of the three study groups who returned to custody within 24 months following release was examined.<sup>7</sup> Table 8 shows no significant differences across groups for returns to custody. Of the offenders who returned to custody, across all groups, most offenders returned to custody as a result of a technical violation of their parole conditions. Post hoc comparisons showed that offenders in the drug users group were more likely than offenders in the alcohol and drug users group to return for a new offence.

<sup>7</sup> Results were similar when fixed 12-month and 24-month follow-up periods were used.

Table 8

*Return to Custody within 24 Months by Study Group*

Variable	Drug Users ( <i>n</i> = 2,157)		Alcohol & Drug Users ( <i>n</i> = 135)		Alcohol Users ( <i>n</i> = 290)		<i>V</i>
	%	( <i>n</i> )	%	( <i>n</i> )	%	( <i>n</i> )	
Returned to Custody	51.6	(1113)	43.0	(58)	46.6	(135)	
Type of Return to Custody (Subset)							.08*
New Offence	23.4	(260)	8.6	(5)	17.8	(24)	
Technical Revocation	76.5	(853)	91.4	(53)	82.2	(111)	
Number of Days under Supervision <i>M</i> ( <i>SD</i> )	268.5	(163.3)	265.8	(153.3)	266.6	(159.0)	

\**p* < .05

## Discussion

This study contributes to an under-examined area in the correctional literature: the behaviour and outcomes of different types of substance abusers while incarcerated and on release. A high proportion of substance users in the sample -- over 80% -- were drug users. This finding may be partly due to the fact that the CSC measure for alcohol abuse that was used to classify the alcohol group is more stringent than the measure for drug abuse. However, it may also reflect the changing offender profile in CSC, which has seen an increase in the number of incarcerated offenders with drug problems (Farrell MacDonald, Mullins, & Ternes, manuscript submitted).

There were clear differences between types of substance users (alcohol users, drug users, and alcohol and drug users) on the majority of the measures examined. The results are consistent with those of Mangrum and Spence (2005), who found that alcohol users were older and had fewer psychosocial problems than those who abused alcohol and drugs. Another finding, which is well documented in the literature and confirmed in the current study, is the link between type of substance use and patterns of criminal behaviour (Boles & Miotto, 2003; Pernanen et al., 2002). The results of the current study indicate that those offenders who primarily use alcohol or a combination of alcohol and drugs were more likely to commit crimes that are violent in nature, such as assault, homicide, and sex-related offences, compared to the group of offenders who primarily used drugs. In contrast, the drug users were more likely to commit drug-related crimes and acquisitive crimes, such as theft, break and enter, fraud, and forgery, compared to the groups that used alcohol. In the current study, the types of crimes committed are reflected in both the sentence number, the length of sentence received, and the type of release granted. For example, offenders in the alcohol user group and alcohol and drug user group were more likely to be serving their first federal sentence compared to the drug user group. This disparity suggests that offenders in the drug user group have more entrenched criminal histories which may be related to drug use driving their criminal behaviour. That is, offenders in the drug user group may have committed an acquisitive crime to fund their drug use. For the alcohol users, alcohol use may have been a catalyst in their crimes, given alcohol's relationship to increases in aggression and impulsivity (Klostermann & Fals-Stewart, 2006). Both groups of offenders who used alcohol were serving longer sentences compared to the drug user group. It is reasonable to assume that the type of substance use played a significant role in the severity and violent natures of the

crimes committed, leading to longer sentences and decreased likelihood of early release.

With regards to institutional behaviour, in the current study, the drug group had the most negative outcomes, followed by the alcohol and drug group. For example, a relationship was identified between drug use and all types of disciplinary charges, with drug users being convicted of more serious violent and non-violent charges, as well as minor charges, than the alcohol users and the alcohol and drug users. Alcohol users had a significantly lower rate of conviction for all serious and minor charges, including: disobeys order, disrespectful/abusive to staff, possesses contraband or unauthorized items, fails/refuses urinalysis, and other violent charges compared to the drug only group.

There were also differences for urinalysis outcomes and time spent in segregation based on substance of choice. Alcohol users had fewer positive urinalysis results and fewer refusals to provide a sample as well as a lower rate of time spent in segregation compared to the drug users and alcohol and drug users. These results suggest that, although the offenders in the alcohol only group were more likely to commit a more serious crime, their behaviour while incarcerated was less problematic than that of offenders who use drugs. These findings are consistent with the literature that suggests that alcohol users are more likely to commit violent crimes; however, when alcohol users have limited or no access to alcohol, their behaviour is more controlled and less violent (Duailibi et al., 2007; Haggard-Grann et al., 2006; Lundholm et al., 2013; Wallin, Norström, & Andréasson, 2003).

Despite having less problematic behaviour while incarcerated, alcohol users were less likely to be granted a discretionary release than drug users. This difference may be related to the severity of their crimes, given that alcohol users more frequently were serving a sentence for violent crimes. However, once released, drug users were more likely to be returned to custody compared to the alcohol and drug user group and the alcohol user group. This finding suggests that drug users may have a more entrenched criminal orientation than alcohol users.

## **Conclusion and Future Directions**

Incarceration provides an opportunity for a marginalized and vulnerable population to access treatment and education programs to address their substance abuse problems. This study suggests that offenders who are alcohol users may realize benefits in terms of reductions in institutional misconducts and recidivism on release from ceasing or reducing alcohol misuse,

while drug users appear to be more firmly entrenched in an antisocial lifestyle, as reflected in their relatively greater criminogenic needs in the areas of attitudes and associates, as well as their more extensive criminal history. Given the growing prevalence of pharmaceutical drug users in the community, future research should also examine sub-types of drug users (i.e., pharmaceutical vs. illicit drug users) within a correctional context. In addition, it may be important to examine the physical and psychological health differences between various types of substance users. This would be particularly relevant for those offenders who engage in injection drug use because the risk of blood-borne diseases and other health concerns is relatively high, which could affect their treatment needs.

The current research study is descriptive in nature and thus does not take into account the impact of co-occurring characteristics that may have contributed to institutional adjustment or returns to custody. For example, it is possible that the relationship between types of substance abuse and outcomes in the institutions and on release may be linked to relatively higher rates of antisocial personality disorder among some groups of substance abusers. Although not within the scope of this project, future research should consider using multi-level statistical modelling to control for differences between these groups to examine the unique contribution that the primary substance of choice has on measures of institutional adjustment and recidivism.

Since the CASA is a self-report measure, responses to the ADS and DAST may have been biased, which could have affected the group classifications. Previous research on the CASA has shown that the majority of responses are reliable (Kunic & Grant, 2007; Ternes, Johnson, & Weekes, 2011), suggesting there is no reason to doubt the accuracy of the group classifications in the present study. There is poorer representation of offenders from the Prairie and Pacific regions due to issues with CASA implementation and the implementation of the Integrated Correctional Program Model. Since previous research has shown that offender region is related to substance of choice (e.g., Johnson, Farrell MacDonald, Cheverie, Myrick, & Fischer, 2012), this may have influenced the proportion of offenders in each group.

Considering the ADS and DAST severity levels in each group, the drug users group was cleaner than the alcohol users group. That is, over 90% of offenders in the drug users group had no or a low alcohol abuse problem according to the ADS and just 1% had a substantial alcohol abuse problem. In contrast, 22% of offenders in the alcohol users group had a moderate to substantial drug abuse problem according to the DAST, suggesting some overlap with the

alcohol and drug users group. Despite this overlap, the alcohol users group stood out as unique from the drug users group and the alcohol and drug users group. However, differences between the groups may have been even stronger if the alcohol users group had been more purely made up of just those with alcohol abuse problems.

Several changes in the population of federally sentenced men during the past 15 years have led to increasing challenges related to the management and rehabilitation of the offender population for CSC (Boe, Nafekh, Vuong, Sinclair, & Cousineau, 2003; CSC, 2006). Since 1997, an increasing proportion of offenders admitted to federal custody require intervention within the areas of education and employment, marital and family relations, interpersonal relationships, personal and emotional orientation, mental health, and substance abuse. Further, an increase in the number of incarcerated drug offenders, the growing prevalence of substance abuse problems, and a growth in gang-related allegiances have posed challenges to the management and reintegration of offenders (Boe et al., 2003; Jones, Roper, Stys, & Wilson, 2004; Motiuk & Vuong, 2006). The results of the present study increase the understanding of the characteristics of alcohol users and drug users, which could assist CSC in managing and intervening with this population.

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## Appendix A: Incident Rate Ratios for Serious and Minor Disciplinary Charges

Table A1  
*Incident Rate Ratios (95% Confidence Intervals) for Serious and Minor Disciplinary Charge Types*

Charge Type	Drug Users	Alcohol & Drug Users
<i>Total Serious Charges</i>		
Alcohol Users	0.48 (0.42-0.54)*	0.59 (0.49-0.71)*
Drug Users		1.24 (1.08-1.43)*
Alcohol & Drug Users		
<i>Total Violent Serious Charges</i>		
Alcohol Users	0.52 (0.41-0.66)*	0.49 (0.35-0.68)*
Drug Users		0.94 (0.75-1.21)
Alcohol & Drug Users		
<i>Total Non-Violent Serious Charges</i>		
Alcohol Users	0.46 (0.39-0.54)*	0.65 (0.52-0.82)*
Drug Users		1.41 (1.18-1.69)*
Alcohol & Drug Users		
<i>Total Minor Charges</i>		
Alcohol Users	0.64 (0.60-0.70)*	0.76 (0.68-0.85)*
Drug Users		1.18 (1.08-1.29)*
Alcohol & Drug Users		
<i>Serious Charges – Disobey Order</i>		
Alcohol Users	0.33 (0.23-0.46)*	0.89 (0.50-1.65)
Drug Users		2.74 (1.74-4.57)*
Alcohol & Drug Users		
<i>Serious Charges – Disrespect/Abuse to Staff</i>		
Alcohol Users	0.48 (0.29-0.75)*	0.56 (0.29-1.13)
Drug Users		1.18 (0.73-2.02)
Alcohol & Drug Users		
<i>Serious Charges - Contraband</i>		
Alcohol Users	0.48 (0.36-0.64)*	0.57 (0.38-0.85)*
Drug Users		1.17 (0.87-1.60)
Alcohol & Drug Users		
<i>Serious Charges – Unauthorized Item</i>		
Alcohol Users	0.62 (0.45-0.85)*	0.61 (0.38-0.98)*
Drug Users		0.98 (0.69-1.42)
Alcohol & Drug Users		
<i>Serious Charges – Fails/Refuses Urinalysis</i>		
Alcohol Users	0.47 (0.34-0.64)*	0.65 (0.40-1.06)
Drug Users		1.39 (0.98-2.05)
Alcohol & Drug Users		
<i>Serious Charges – Other Violence</i>		
Alcohol Users	0.54 (0.40-0.71)*	0.47 (0.32-0.69)*

Charge Type	Drug Users	Alcohol & Drug Users
Drug Users		0.87 (0.67-1.16)
Alcohol & Drug Users		
<i>Serious Charges – Nonviolent</i>		
Alcohol Users	0.42 (0.84-1.33)	1.45 (0.12-76.33)
Drug Users		3.43 (0.58-138.54)
Alcohol & Drug Users		
<i>Minor Charges – Disobeys Order</i>		
Alcohol Users	0.66 (0.60-0.72)*	0.81 (0.70-0.94)*
Drug Users		1.23 (1.09-1.39)*
Alcohol & Drug Users		
<i>Minor Charges – Disrespectful/Abusive to Staff</i>		
Alcohol Users	0.61 (0.47-0.79)*	0.80 (0.54-1.21)
Drug Users		1.32 (0.96-1.85)
Alcohol & Drug Users		
<i>Minor Charges – Contraband</i>		
Alcohol Users	0.67 (0.45-0.97)*	0.47 (0.28-0.78)*
Drug Users		0.70 (0.49-1.03)
Alcohol & Drug Users		
<i>Minor Charges – Unauthorized Item</i>		
Alcohol Users	0.73 (0.60-0.88)*	0.86 (0.64-1.17)
Drug Users		1.18 (0.92-1.52)
Alcohol & Drug Users		
<i>Minor Charges – Fails/Refuses Urinalysis</i>		
Alcohol Users	0.99 (0.19-3.39)	0.97 (0.05-57.19)
Drug Users		1.47 (0.23-61.19)
Alcohol & Drug Users		
<i>Minor Charges – Other Violence</i>		
Alcohol Users	0.53 (0.32-0.84)*	0.65 (0.31-1.36)
Drug Users		1.22 (0.72-2.21)
Alcohol & Drug Users		
<i>Minor Charges – Nonviolent</i>		
Alcohol Users	0.49 (0.36-0.65)*	0.52 (0.35-0.79)*
Drug Users		1.07 (0.80-1.46)
Alcohol & Drug Users		

\*  $p < .05$