Foundation for Alcohol Research & Education

Cohort report:

People with problematic alcohol use, mental health disorders and cognitive disabilities in the criminal justice system

Daren Fisher
Melissa Clarence
Dr Leanne Dowse
Professor Eileen Baldry
UNIVERSITY OF NEW SOUTH WALES

APRIL 2011

UNSW THE UNIVERSITY OF NEW SOUTH WALES | Arts and Social Sciences

Cohort Report

People with Problematic Alcohol Use, Mental Health Disorders and Cognitive Disabilities in the Criminal Justice System

Daren G. Fisher
Melissa Clarence
Leanne Dowse
Eileen Baldry

This paper was produced with funding from the Foundation for Alcohol Research and Education (FARE) as part of the *Researching People with Problematic Alcohol Consumption and Mental Health Disorders and Cognitive Disabilities in the Criminal Justice System* project.

Contents

Table of Figures 4
1. Project Description 5
2. Cohort Description and Definitions 6
3. Literature Review 7
3.1 Definitions of problematic alcohol use 7
3.2 Interactions with MHDCD and attempts to study problematic alcohol 7
3.3 Studying complex populations 8
4. Findings 9
4.1 Cohort Description – Alcohol Groups 9
4.2 MHDCD and Alcohol Related Harm - Description 10
4.3 Alcohol groups – Offending & Custody 14
4.4 Offending Practices 14
4.5 Traffic Offences 23
5. Discussion of Limitations 25
6. Ethical Considerations 25
7. Bibliography 25

Table of Figures

Figure 1: MHDCD study groups, definitions and number of individuals 6
Figure 2: MHDCD Cohort Study Groups as a proportion of the whole cohort 9
Figure 3: Number and percentage of individuals who have experienced some harm associated with alcohol use 10
Figure 4: Demographic Details of Each Problem Associated with Alcohol Group 11
Figure 5: Proportion of individuals who have experience some harm associated with alcohol use across gender 11
Figure 6: Proportion of individuals who experienced harm associated with alcohol use across Indigenous status 12
Figure 7: Proportion of the cohort population that had been recorded with an MHDCD diagnosis 13
Figure 8: Proportion of homelessness (NFPA) across harms associated with alcohol categories and gender 13
Figure 9: Intoxication related police events across alcohol related harms groups 14
Figure 10: Offences across alcohol offending status 16
Figure 11: Offending trends across alcohol related harms 17
Figure 12: Length of custody and number of custody episodes across harms associated with alcohol groups 18
Figure 13: Average number of police events and intoxication related events 18
Figure 14: Top 25 Police Incident Categories For Police Contacts 19
Figure 15: Police contacts, finalised matters and convictions by alcohol group 20
Figure 16: Age first police contact, average police events and custodial events by age - diagnosed alcohol and alcohol related offences 21
Figure 17: Age first police contact, average police events and custodial events by age - diagnosed alcohol group 21
Figure 18: Age first police contact, average police events and custodial events by age - alcohol related offences 22
Figure 19: Age first police contact, average police events and custodial events by age - no alcohol group 22
Figure 20: Average number of traffic offences across harms associated with alcohol 23
Figure 21: Average number of traffic offences across MHDCD classifications 23
Figure 22: Traffic offences by gender 24
Figure 23: Traffic offences by Indigenous status 24

1. Project Description

Stemming from the People with Mental Health Disorders and Cognitive Disabilities (MHDCD) in the Criminal Justice System (CJS) Australian Research Council funded study based at the University of New South Wales (UNSW), this study, funded by the Alcohol Education and Rehabilitation Foundation (AERF) investigated the impacts that problematic alcohol consumption has on this population. Beyond crime, Carta, Happell and Pinkahana contend that problematic alcohol use amongst those with mental health issues has a significant impact on reducing quality of life, ability to perform self-care, form social relationships, and achieve financial stability (2004: 43). Although the presence of people with MHDCD in the CJS in Australia, particularly those with problematic alcohol use, is a matter of vital public concern in terms of the social and economic costs, studying alcohol involvement across the life span has proven problematic (Sher, Grekin, and Williams, 2005:497).

To address the range of methodological difficulties inherent in researching complex populations such as this group, the MHDCD project has taken an innovative approach using linked but de-identified extant administrative records. Data from a range of CJ agencies has been combined to create a detailed dataset on the life-long Criminal Justice (CJ) involvement for a cohort of offenders with MHDCD. Agencies include:

- NSW Department of Corrective Services
- Juvenile Justice NSW
- NSW Police
- Justice Health NSW
- Courts NSW
- Legal Aid NSW

To provide greater depth and better understand the life-course of the individuals in the cohort, data has also been gathered from Human Services agencies including:

- Community Services NSW, Department of Human Services NSW
- Ageing, Disability, and Home Care NSW, Department of Human Services NSW
- Housing NSW, Department of Human Services NSW
- NSW Department of Health (admitted patient, mortality and pharmacotherapy records).

Linking data across CJS sub-systems with Health and Human Services data reveals a coherent picture of the multiple factors, including alcohol, which contribute to the pathway people with MHDCD take into and through the CJS. It is believed, that approaching research in this manner will assist in the development of new interventions addressing needs such as preventative health, issues such as duty of care, and therefore human rights.

In addition to adding to the current local knowledge base, this project aimed to:

i. Develop a training tools for use by agencies who wish to gather information on such complex needs groups and which can enable the development of collaborative, integrated planning, and responses to the growing problem of the persistent involvement of people with MHDCD and alcohol problems in the CJS
ii. Facilitate the establishment of data management standards, procedures, and management in organizations.
iii. Facilitate the analysis of data so that an integrated picture of systems involvement can be established for this group

This document reports the results of mining the MHDCD in the CJ dataset to explore the impacts that problematic alcohol use has on those with MHDCD in the CJS and uses definitions generated for the MHDCD project (as outlined

below). It provides a brief review of the literature surrounding problematic alcohol use, mental health, disability and criminal justice outcomes, then outlines the rationale and procedure used for the development of the unique data-linkage procedure utilised in the MHDCD project. The approach to the analysis of the data collected from the CJ and Human Service agencies is discussed in Section 5, and the results of the analysis are outlined in Section 4.

2. Cohort Description and Definitions

The cohort has been divided for the purposes of easy analysis. These groups are displayed in Figure 1, along with the project definition of each group and the number of individuals in each.

Figure 1: MHDCD study groups, definitions and number of individuals

Study Group	Definition	Individuals
MH_ID	History of mental health problems and an intellectual disability	213
MH_BID	History of mental health problems and a borderline intellectual disability	245
MH_AOD	Mental health disorder and a history of substance use	349
ID_AOD	Defined as an intellectual disability and a history of substance use	245
BID_AOD	Defined as borderline intellectual disability and a history of substance use	288
ID	IQ scores less than 70 - no confirmation of adaptive functioning or age of onset	220
BID	IQ scores between 70 and 80 - no confirmation of adaptive functioning or age of onset	280
MH	Any anxiety disorder, affective disorder or psychosis in the previous 12 months	180
AOD/PD	Any personality disorder or substance use disorder in the previous 12 months and an absence of other category	392
No diagnosis	No mental health or cognitive disability diagnosis	330

The term Cognitive disability (CD) is used in the study to describe the group which includes those with intellectual disability (ID), borderline intellectual disability (BID) and either of these with other diagnoses (complex) and those with acquired brain injury (ABI) who have either below 70 or between 70 and 80 IQ.

Problematic Alcohol Consumption	Maladaptive pattern of alcohol use manifested by recurrent and significant adverse consequences related to the repeated use of alcohol (Sher, Grekin, and Williams, 2005:494-95)
Alcohol Associated Harms	Adverse social and health consequences resulting from alcohol, including alcohol related crimes (Room, 1984, 294-97)
Alcohol Related Crimes	Any criminal offence where alcohol was noted by Police as 'alcohol related', or where it was noted that the person was intoxicated at the time of the offence.

3. Literature Review

3.1 Definitions of problematic alcohol use

Definitions of problematic alcohol use in the academic literature tend to centre around two key frameworks, medical definitions of addiction and dependence (Sher, Grekin and Williams, 2005:494), and the problems and harms that result from problematic alcohol use (Weitzman and Chen, 2005:303). Criticisms may be levelled at both definitions and approaches to understanding problematic alcohol use, as they do not encapsulate the full harms and effect that alcohol use has on the individual. The recognition that dealing with alcohol abuse is not by itself an adequate response to the public health and public order problems related to drinking is an important concession (Room, 1984:294).

Taking these concerns seriously, a broad operational definition of problematic alcohol use has been adopted by this study: problematic alcohol use is both a substance abuse diagnosis and a factor that contributes to individuals committing crime (see 5.2 for a detailed definition). To avoid understating the impact that alcohol may have in the commission of crime amongst the cohort in the MHDCD dataset, any indication of alcohol use in the commission of a crime within the Police Events database was used as the benchmark for this study.

3.2 Interactions with MHDCD and attempts to study problematic alcohol

A growing body of literature asserts that, for up to 41% of incarcerated individuals, alcohol on its own, or in combination with other drug use, is causally associated with their offending (Johnson, 2004:5; Makkai and Payne, 2003:1). While other studies have been less inclined to suggest that a causal link exists, a relationship between untreated mental health and/or substance abuse disorders and crime is also evident (McNiel, Binder and Robinson, 2005:845). Junginger, Calypoole, Laygo, and Crisanti (2006:879), suggest that this relationship may be a product of the symptoms of serious mental illness and substance abuse disorders motivating actual criminal offences, and these same symptoms have become de facto criminal offences in themselves. Furthermore, substance abuse was found to be a more likely causal factor for criminal offending than serious mental illness in those with dual-diagnoses (Junginger, Calypoole, Laygo, and Crisanti, 2006:881).

It is impossible to divorce the social outcomes from health outcomes in problematic alcohol use, and links between the two domains have been shown (Loxley and Adams, 2009:17). Combined with the high prevalence of psychiatric disorders experienced by those with diagnosed substance misuse problems (Cleary, Hunt, Matheson, and Walter, 2009:122), poor health and treatment outcomes are also associated with problematic alcohol use (Todd, Green, Harrison, et al, 2004:585). Reflecting the aforementioned de facto criminalisation of those with mental health and substance abuse disorders (Junginger, Calypoole, Laygo, and Crisanti, 2006:879), health professionals have reported that those presenting with problematic alcohol and a psychiatric illness are more difficult to treat than those with mental health disorders alone (Wancata, Benda, Windhaver, and Nowotny, 2001:8), and that nurses are more likely to hold punitive and negative attitudes towards these dual diagnosis patients (Selleck and Redding, 1998:74; Carta, Happell and Pinkahana, 2004:43).

These negative criminal and health outcomes may not be specifically attributable to mental health or substance use disorders only. Factors such as unemployment, poverty, and homelessness inherent in the social settings of many individuals with a dual-diagnosis, may be more powerful risk factors for crime than mental illness and substance abuse alone (Draine, Salzer, and Culhane, 2002:565). Social capital exerts strong protective effects against alcohol abuse and other related harms (McDermott and Pyett, 1994:49; Weitzman and Chen, 2005:303) but those with co-existing psychiatric illnesses and substance abuse disorders experience a wide variety of risk and protective factors and should

not be viewed as being part of a homogenous group (Daley, Salloum, and Jones-Barlock, 1990:45; Cleary, Hunt, Matheson, and Walter, 2009:123).

3.3 Studying complex populations

While randomised controlled studies are often considered the 'gold standard' for research involving health outcomes (Ladd, McCrady, Manuel, and Campbell, 2010:660), treatment and research involving this population has proven to be difficult due to challenges associated with motivation and frequent social setting changes (Cleary, Hunt, Matheson, and Walter, 2009:122). The high rate of contact with health and social services presents an opportunity not only for estimating the size and composition of these cohorts, but also may present a unique series of insights into the life-paths of these individuals. The low cost and potentially high return for researchers afforded by these data make them an important resource to be explored (Fisher and Rivard, 2010:548). Moreover, research utilising existing sources of data is beneficial for agencies that are keen to make maximum use of their available resources.

In addressing the issues central to the experience of people with MHD&CD in the CJS, this study explores the links between social exclusion, impairment and disability and the systemic impacts of criminal justice and human service paradigms. Underpinning this approach are the theoretical areas of Critical Criminology and the emerging field of Critical Disability Studies. Critical Criminology seeks to locate and understand the reasons for crime within wider structural and institutional contexts. These contexts may be conceived of in various forms including those based in socio-economic, class, cultural, racialised and gendered perspectives (Anthony and Cunneen, 2008:1). It sees crime and social responses to it as deeply political, cultural and critically challengeable matters.

Disability Studies is based on the premise that the disadvantage typically experienced by those who are disabled reflects primarily the way society defines and responds to certain types of 'difference'. Identified with this perspective is the social model of disability which makes a crucial distinction between impairment as a condition of the individual body or mind (such as experiencing schizophrenia, intellectual disability or brain injury), and disability, which is the social experience flowing from the presence of impairment, including the range of barriers to full participation that exist in a society which privileges 'normalcy' and marginalizes difference (Oliver and Barnes, 1998). Both these critical approaches challenge individualistic explanations and positions: ie the view of criminality as just an individual law breaking choice and disability as an individual deficit or defect; neither can be remedied solely through individual punitive or medical intervention, rehabilitation by "experts" or ameliorated by service providers. The critical approach explores the social, political, cultural, and economic factors shaping crime and disability and society's response to them, whilst still recognising the importance of appropriate individual interventions.

In conceptualising the intersections of the social, systemic and individual dimensions which operate to structure the experience of people with MHD&CD in relation to criminal justice, the critical disability perspective provides two further important insights – that the impaired body or mind cannot be simply represented as a passive recipient of social forces (Paterson and Hughes, 1999) and that disability must be moved from its peripheral status in the analysis of the difference, to a central position, re-theorizing it as a key organizing principle in the construction of an individual's identity (Erevelles, 2000). Nevertheless, critical disability studies has not addressed the significant number of people with MHDCD in prisons or theorised on this intersection. Equally, critical criminology, when it does address disability, which is rarely, relegates disability to the status of an additional dimension of social disadvantage. The theoretical orientation of this study brings disability to the centre of the analysis and undertakes to combine these two perspectives, suggesting a new way to make visible the material structures, ideological discourses and experiences of impairment that fundamentally and differentially structure an individual's life course and experience of social inclusion/exclusion.

The concept of social exclusion is a useful one in linking the discourses of critical criminology and critical disability studies, and provides a useful lens through which to examine the complex matrixes of exclusion and marginalisation experienced by people with MHD&CD and their interactions with social systems. The social exclusion perspective combines a consideration of an individual's risk and protective factors with system and policy driven problems and accounts for what can happen when people experience a combination of linked problems such as unemployment, poor skills, low incomes, unstable housing, high crime environments, poor health and family breakdown (Social Exclusion Unit, 2001). Life course studies demonstrate that childhood factors are not reliably predictive of criminal justice system involvement, nor are adolescent and adult personal risk factors (Bynner, 2000).

Both these perspectives though can be overly individually focussed at the expense of a critical analysis of the systemic policy drivers. To address this, the current study follows an iterative process of identifying, understanding and removing obstacles to resources combined with a deeper analysis of the dynamics of both impairment and disability and the way they structure an individual's interactions with such systems, as well as a reflective analysis of the way the system in turn structures those dynamics. This approach is crucial to understanding persons with MHD&CD's positioning in the social world and in developing strategies to assist people with these disabilities to stay out of the CJS.

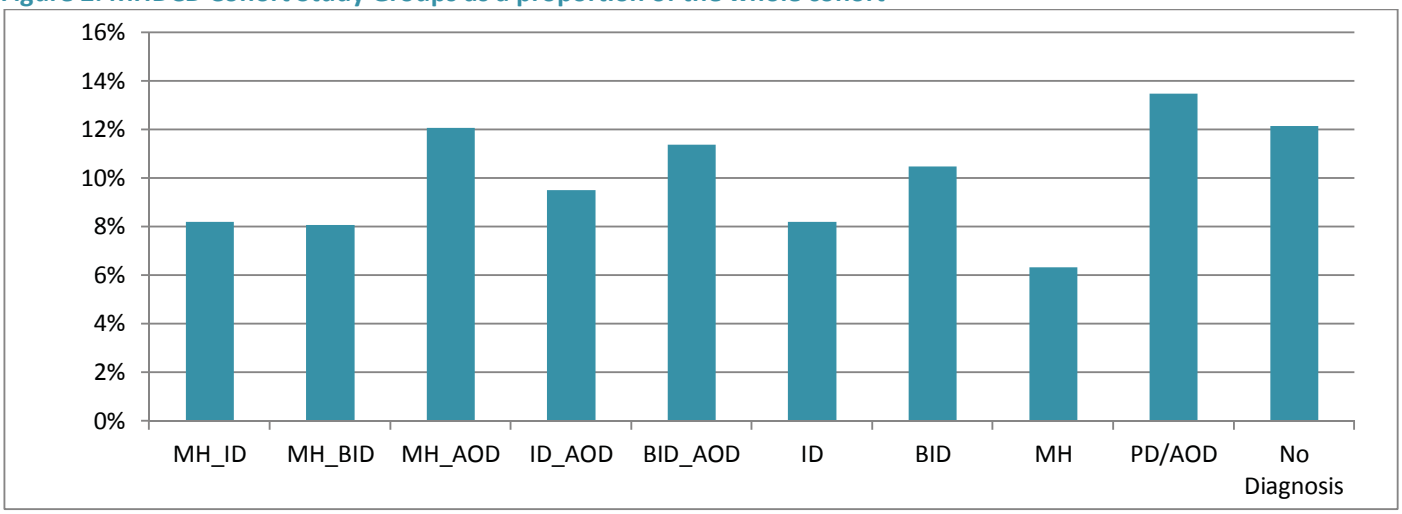
4. Findings

4.1 4.1 Cohort Description – Alcohol Groups

As previously described, the cohort consists of 2,731 individuals who had been incarcerated as an adult in NSW. Out of this population, 88.5% (n=2,417) of the cohort is male, and 24.8% (n=676) is of Aboriginal or Torres Strait Islander descent. The average age for people in the cohort was 35.8 years at the time of drawing the data, and the average age at first police contact where they were a person of interest or were charged with an offence, was 17.7 years.

Figure 2 shows the breakdown into main diagnoses of those in the cohort. This division is to enable discussion of the groups but is somewhat arbitrary as those with 2 diagnoses (eg MH-BID) may have further diagnoses (eg MH-BID –AOD). The groups have been created based on primary presentation in the groups from left to right, and are not mutually exclusive except for the single diagnoses groups and no diagnosis group at the far right.

Figure 2: MHDCD Cohort Study Groups as a proportion of the whole cohort



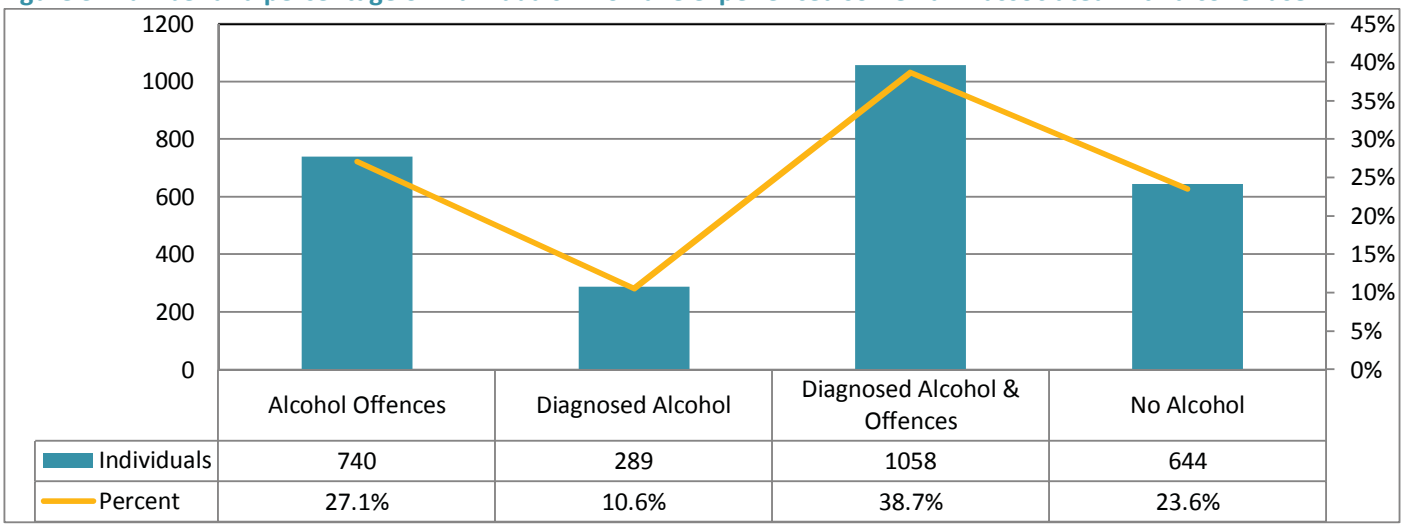
To identify those within the cohort who had experienced some harm associated with alcohol use, the dataset was divided to show those who had been convicted with an alcohol related crime, and those who had been clinically

diagnosed with an alcohol use disorder, those who had both an alcohol related crime and an alcohol disorder and those with no alcohol related harm at all recorded. Alcohol related harm was determined by: drawing data from the police events for this cohort where police contact included alcohol being listed as an associated factor or the offender being recorded as drinking prior to the event[1]; and from the Justice Heath 2001 Inmate Health Survey and the NSW Department of Corrective Services State-wide Disability data sets, drawing information on members of the cohort who were diagnosed with an alcohol use disorder. Figure 3 displays the number of individuals in each group associated with alcohol harm (minus traffic offences that are dealt with later in the report).

Figure 3 shows the small proportion (10.6%) of the cohort who have been diagnosed with an alcohol related disorder, but have not committed an offence that involves alcohol in some way. 65.8% (n=1798) of the cohort committed an alcohol related offence, and 23.6% (n=644) were not diagnosed with an alcohol use disorder and had not committed an alcohol related offence. Men were more likely to be diagnosed with an alcohol related disorder and have an alcohol related offence than women were, and women were more likely to be diagnosed with problematic alcohol use without an offence and less likely to have committed an alcohol related offence (Figure 3).

The findings of note here are that only 23.6% of the total cohort had no alcohol related harm recorded and that almost two thirds (66%) had alcohol related offences recorded.

Figure 3: Number and percentage of individuals who have experienced some harm associated with alcohol use



4.2 MHDCD and Alcohol Related Harm - Description

Figure 4 details the key demographic characteristics of the four alcohol groups that were created. There are differences in the age profiles across these groups, though with a consistent pattern in both current age and age at first police contact. Individuals with alcohol related offences were on average younger in 2008 also were younger when they had their first police contact. The variation in age needs to be considered when interpreting these results as this is particularly important when examining the volume of police contact and offending. Those without an alcohol related

[1] Traffic offences have not been included in this main analysis or in determining the composition of these groups. Traffic offences related to alcohol are noted differently in the police records and if included in the main body would skew the results.

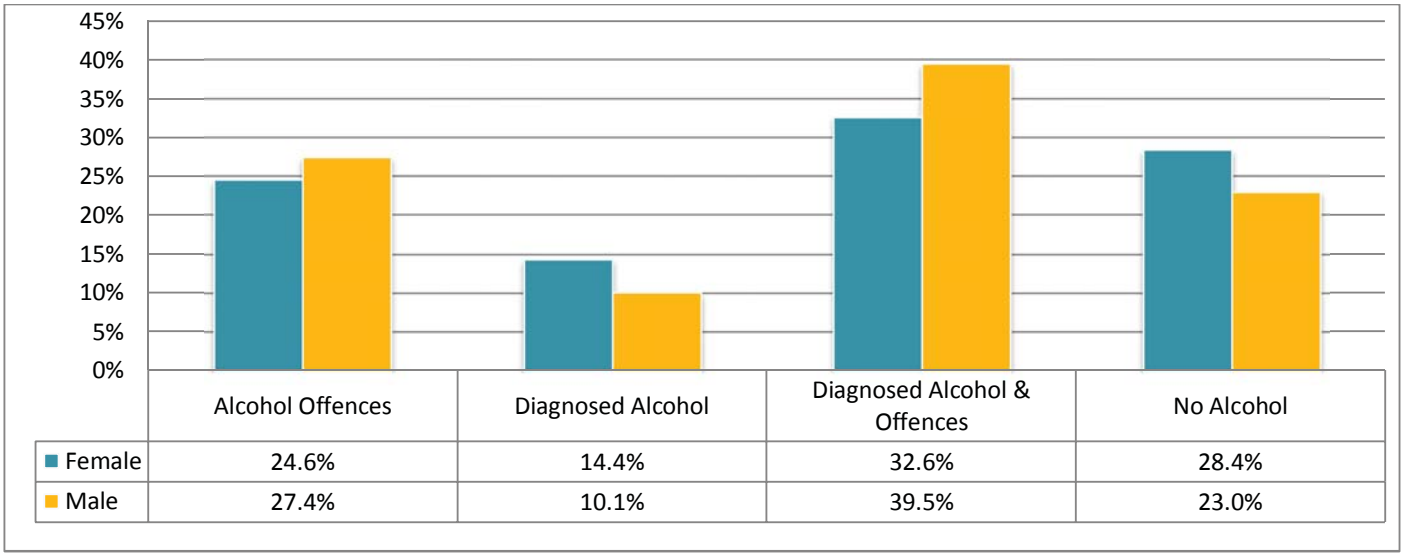
offence are both older now, providing greater opportunity to have offended, though having first come into contact with police up to six years later than individuals with an alcohol related offence.

Figure 4: Demographic Details of Each Problem Associated with Alcohol Group

		Diagnosed Problematic Alcohol Use and Alcohol Related Offence	Diagnosed Problematic Alcohol Use	Alcohol Related Offence	Not Diagnosed Problematic Alcohol Use and No Alcohol Related Offence	P-Value
% Cohort		38.7%	10.6%	27.1%	23.6%	
Age	At 2008	33.7	37.8	34.5	39.9	**<.001**
	At first police contact	15.9	19.0	16.8	21.2	**<.001**
						.006
Gender	Male	39.5%	10.1%	27.4%	23.0%	
	Female	32.6%	14.4%	24.6%	28.4%	
						<.001
ATSI Status	Indigenous	58.3%	8.0%	26.2%	7.5%	
	Not Indigenous	32.6%	11.6%	27.5%	28.4%	
	Unknown	38.4%	11.3%	26.3%	24.1%	

Gender was seen to have a significant relationship with alcohol related harms (sig. = 0.06) (see Figure 5). Across the cohort there was a similar proportion of individuals diagnosed with problematic alcohol use for males (49.6%) and females (47%). Females had a lower proportion of individuals to have ever had an alcohol related police contact or offence, however this was still high at 57% (t = 3.3, p = .001). Of those with a diagnosed alcohol disorder, a higher proportion of males (80%) went on to commit an alcohol related offence compared to females with a problematic alcohol diagnosis (69%).

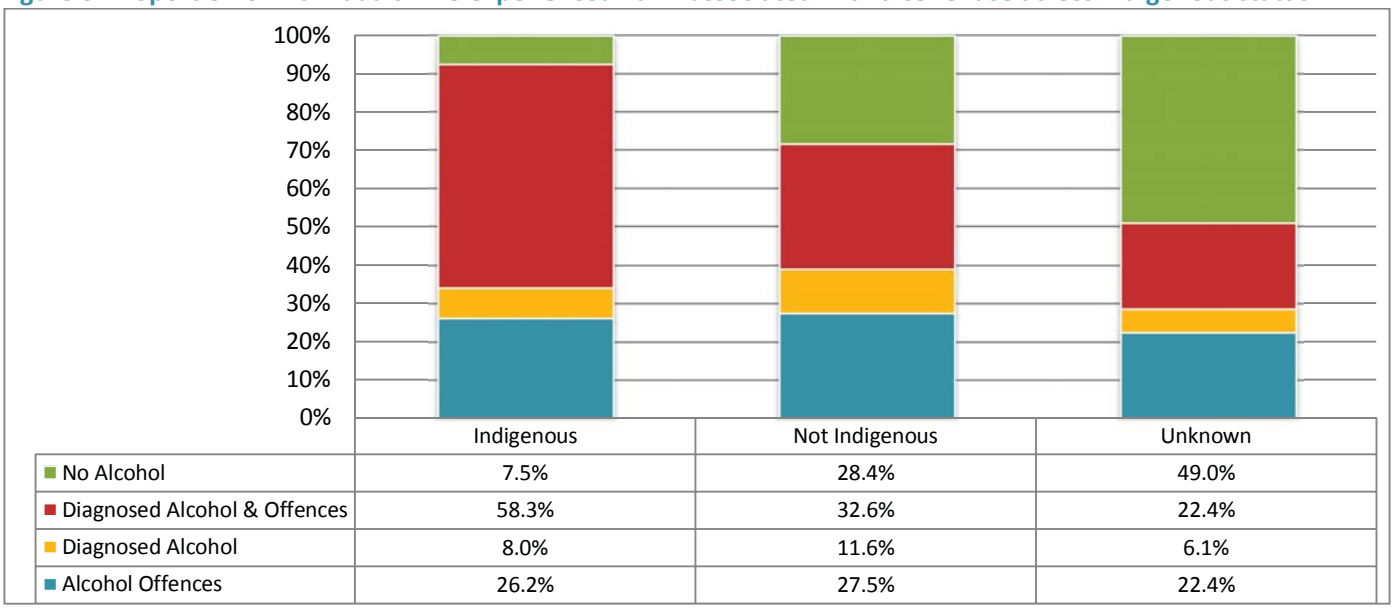
Figure 5: Proportion of individuals who have experience some harm associated with alcohol use across gender



When the cohort was analysed by Indigenous status, it was evident that there was a significantly higher proportion of Indigenous Australians than non-Indigenous people diagnosed with problematic alcohol use and an alcohol related offence (58.5%), (Table 1). As evidenced in Figure 6 below, Indigenous status was significantly related to problems associated with alcohol, and only 7.5% of those who were identified as being of Aboriginal or Torres Strait Islander descent had not been diagnosed with problematic alcohol use and did not have an alcohol related offence (

Figure 6). Indigenous Australians diagnosed with an alcohol related disorder also had a very high rate of alcohol related police contacts, with 88% of individuals with a diagnosis having contact with the police related to alcohol, compared to 74% of non Indigenous Australians.

Figure 6: Proportion of individuals who experienced harm associated with alcohol use across Indigenous status



	Indigenous	Not Indigenous	Unknown
No Alcohol	7.5%	28.4%	49.0%
Diagnosed Alcohol & Offences	58.3%	32.6%	22.4%
Diagnosed Alcohol	8.0%	11.6%	6.1%
Alcohol Offences	26.2%	27.5%	22.4%

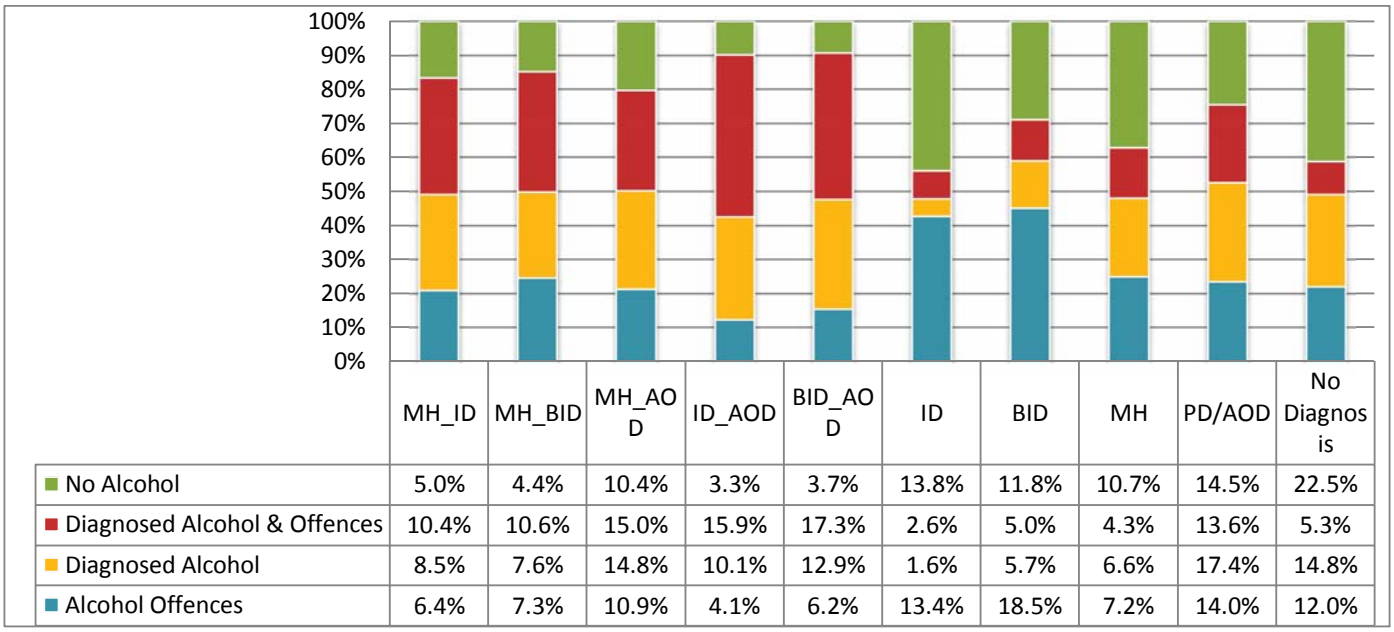
Figure 6 also shows a notably higher proportion of those with unknown Indigenous status without an alcohol related offence or problematic alcohol diagnosis (49.0%). It should be noted however that those with unknown Indigenous status comprised only 56 of the 2,731 (2%) individuals in the cohort.

Using the definitions developed by the MHDCD in CJS project, the proportion of each one of these classifications was analysed by the problems associated with alcohol categories that they had experienced (

Figure 7). Chi square tests revealed a significant relationship between MHDCD status and alcohol related harms (χ^2 = 551.5, p <.001). Those who had received multiple MHDCD diagnoses (complex needs persons) were the most likely to have committed an alcohol related crime and be diagnosed with problematic alcohol use, with approximately 70% of this group falling into this category.

Individuals with an intellectual disability (53.2%) or a borderline intellectual disability (53.8%) had higher rates of problematic alcohol use when compared to those without an intellectual or borderline intellectual disability (44.5%). Eighty three percent of individuals with a cognitive disability who had been diagnosed with problematic alcohol use also had committed an alcohol related offence. This is significantly higher than the rate of individuals without a cognitive disability (t = 2.75, p = .006) who committed an alcohol related offence.

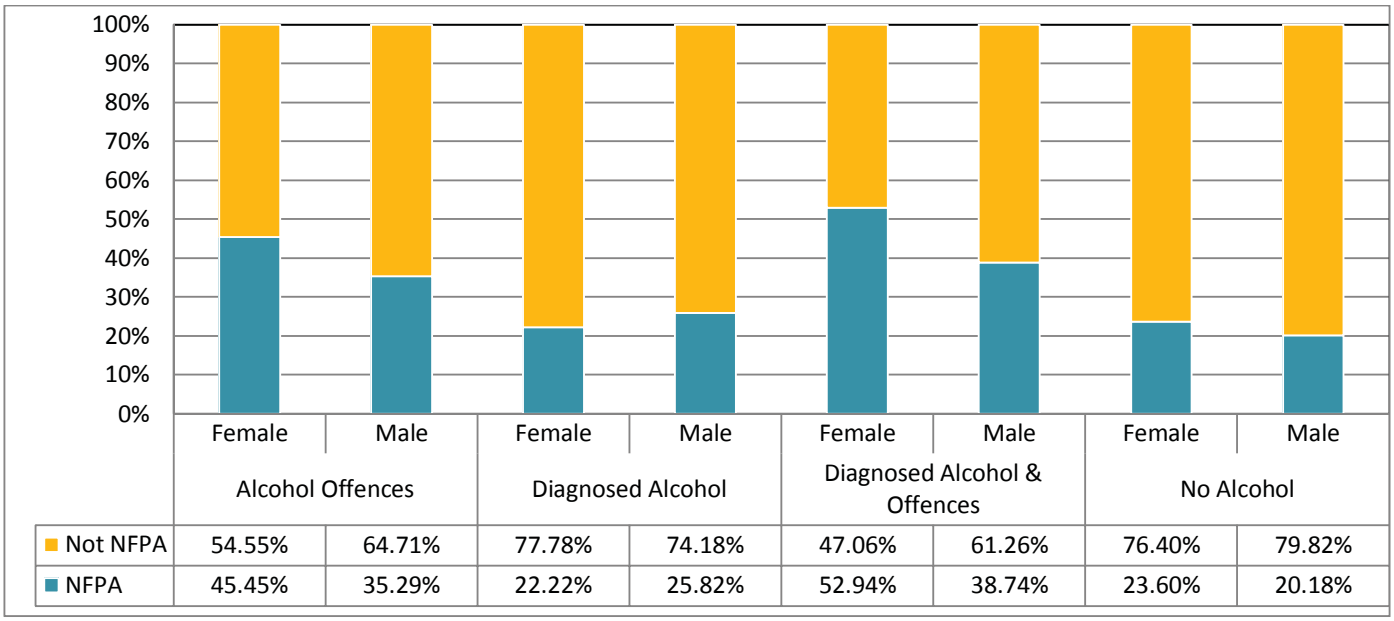
Figure 7: Proportion of the cohort population that had been recorded with an MHDCD diagnosis



	MH_ID	MH_BID	MH_AOD	ID_AOD	BID_AOD	ID	BID	MH	PD/AOD	No Diagnosis
No Alcohol	5.0%	4.4%	10.4%	3.3%	3.7%	13.8%	11.8%	10.7%	14.5%	22.5%
Diagnosed Alcohol & Offences	10.4%	10.6%	15.0%	15.9%	17.3%	2.6%	5.0%	4.3%	13.6%	5.3%
Diagnosed Alcohol	8.5%	7.6%	14.8%	10.1%	12.9%	1.6%	5.7%	6.6%	17.4%	14.8%
Alcohol Offences	6.4%	7.3%	10.9%	4.1%	6.2%	13.4%	18.5%	7.2%	14.0%	12.0%

The relationship between homelessness and problematic alcohol use can be seen in Figure 8, with those in the categories of alcohol offences and diagnosed alcohol and offences having significantly higher homelessness than the other two categories. The relationship between homelessness, offences and problematic alcohol use is particularly strong for females, as shown by the high proportion of females in both groups with alcohol related offences (approx. half) having recorded instances of homelessness.

Figure 8: Proportion of homelessness (NFPA[2]) across harms associated with alcohol categories and gender



	Female	Male	Female	Male	Female	Male	Female	Male
	Alcohol Offences		Diagnosed Alcohol		Diagnosed Alcohol & Offences		No Alcohol	
Not NFPA	54.55%	64.71%	77.78%	74.18%	47.06%	61.26%	76.40%	79.82%
NFPA	45.45%	35.29%	22.22%	25.82%	52.94%	38.74%	23.60%	20.18%

[2] NFPA = no fixed place of abode.

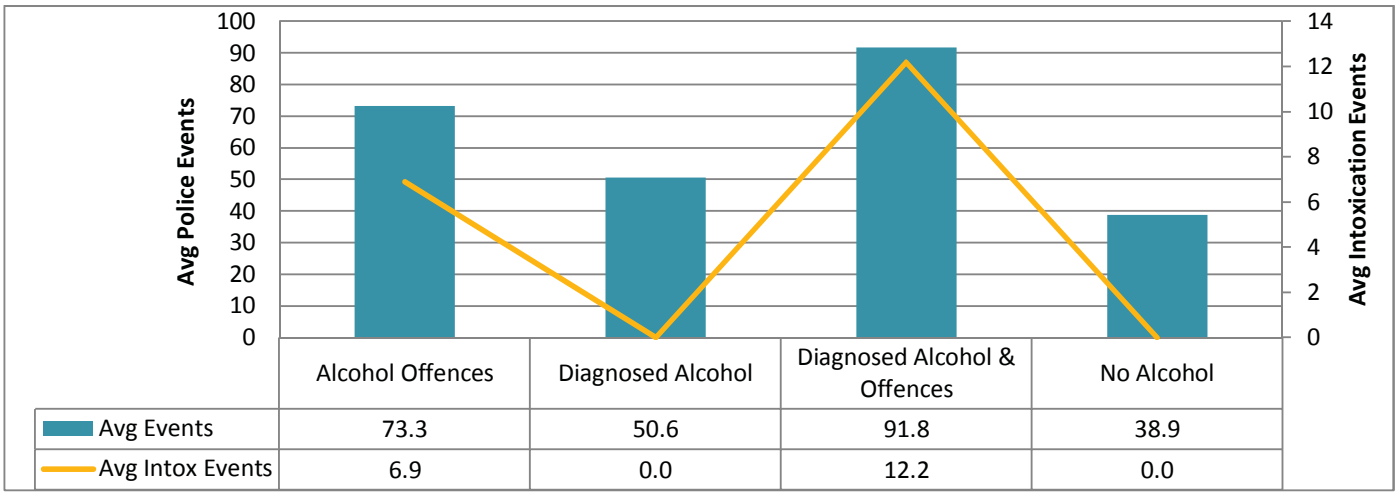
4.3 Alcohol groups – Offending & Custody

Across the cohort, women had fewer contacts with police (ns.), however there was no difference in the rate of police contacts per year. Overall, there were no significant differences in the number of convictions across gender, though the proportion of all finalised matters that resulted in a conviction was higher for women ($t = 2.02$, $p = .043$). Women offended for significantly less years ($t = 4.92$, $p < .001$), as a result of both being on average one year older than males in this cohort and commencing police contact on average over three years later than males in the cohort ($t = 6.2$, $p < .001$). The group of women who had committed an alcohol related offence, were also involved in significantly less intoxication events than males ($t=3.7$, sig. < 0.001) and these alcohol events comprised a lower proportion of all offences ($t = 2.92$, $p = .004$).

Those who had been identified as having an alcohol related police event were involved in significantly more events in general ($t = 20.6$, $p < .001$). Figure 9 displays the number of events across all alcohol categories. Interestingly, individuals with a diagnosed alcohol disorder had on average twice as many alcohol related police events compared to those with only alcohol offences.

Only 9.4% of all police events experienced by the cohort involved alcohol. Excluding the 933 individuals who did not have an alcohol related offence recorded against them, those who had an alcohol related Police event had a mean number of ten alcohol related events, and a mean total number of 70 Police events per person across the cohort.

Figure 9: Intoxication related police events across alcohol related harms groups



	Alcohol Offences	Diagnosed Alcohol	Diagnosed Alcohol & Offences	No Alcohol
Avg Events	73.3	50.6	91.8	38.9
Avg Intox Events	6.9	0.0	12.2	0.0

4.4 Offending Practices

The offences for the cohort broken down by groups with and without alcohol related offences are detailed in

Figure 10. This illustrates that generally the offence profile is similar. The main exceptions are higher rates of assault and disorderly contact for the groups with alcohol offences and higher driver licence offences, handling the proceeds of crime and sexual assault for the groups without alcohol related offences.

Figure 10: Offences across alcohol offending status

Offence Type	Cohort	Groups with Alcohol Offences	Groups without Alcohol Offences
Driver Licence offences[3]	22441	17268	5173
Theft (except motor vehicles)	7486	5879	1607
Assault	6987	6026	961
Disorderly conduct	6193	5243	950
Unlawful entry with intent/burglary, break and enter	4511	3452	1059
Receive or handle proceeds of crime	3996	2929	1067
Property damage	3795	3296	499
Possess and/or use illicit drugs	3087	2400	687
Dangerous or negligent operation of a vehicle	2064	1507	557
Robbery	1303	958	345
Sexual assault	585	235	350
Other fraud and deception offences	569	418	151
Regulated weapons/explosives offences	381	290	91
Regulated public order offences	320	256	64
Prohibited weapons/explosives offences	234	172	62
Manufacture or cultivate illicit drugs	193	138	55
Deal or traffic in illicit drugs	175	101	74
Other illicit drug offences	155	113	42
Deceptive business/government practices	69	17	52
Manslaughter and driving causing death	62	28	34
Abduction and kidnapping	53	26	27
Murder	41	17	24
Obtain benefit by deception	30	15	15
Import or export illicit drugs	24	0	24
Forgery and counterfeiting	20	9	11
Environmental pollution	18	14	4
Other acts intended to cause injury	13	9	4
Deprivation of liberty/false imprisonment	8	3	5
Non-assaultive sexual offences	5	2	3
Other dangerous or negligent acts endangering persons	5	4	1
Attempts to murder	2	0	2
Illegal use of property (except motor vehicles)	1	1	0
Total	**64826**	50826	14000

Comparing those with and without a problematic alcohol use diagnosis illustrates the difference in overall CJS contact. Individuals with a problematic alcohol diagnosis have significantly higher criminal justice contact;

- Earlier first police contact by an average of 2.3 year ($t = 8.6$, $p < .001$),
- More police contact with an average of 83 events ($t = 11.4$, $p < .001$),
- Higher rate of police contact with 4.9 contacts per offending year ($t = 10.9$, $p < .000$),

[3] The discussion of driving offences is treated separately in this report. Driving offences have not been used when creating the harms associated with alcohol groups.

- More offences (average of 34.7) dealt with by the court (t = 9.8, p < .001),
- Almost 4 additional custody episodes (t = 12.2, p <.001), and
- Over one additional year spent in custody (t = 8.9, p <.001).

When comparing individuals based on alcohol related police events, the contrast in criminal justice contact is more pronounced on all measures, including;

- Police contact for individuals with an alcohol related police event occurs over four years earlier than the remaining individuals in the study (t = 13.0, p <.001),
- Double the number of police events with an average of 84 police contacts (t = 20.6, p <.001),
- Twice the rate of police contact across offending years with an average of five contacts per year (t = 19.8, p <.001),
- More offences (average of 35.3) dealt with by the court (t = 16.9, p < .001), and
- Double the number of custody episodes with an average of 10.4 per person (t = 17.2, p <.001).

The total number of days spent in custody however is marginally lower for individuals with an alcohol related police contact compared to those with no alcohol related police contacts (n.s) and given they have almost double the number of custody episodes this is suggestive of higher rates of short remand and sentence episodes.

Those with both an alcohol related offence and who had been diagnosed with problematic alcohol use had a lower mean age of first contact with Police, higher mean number of convictions, and higher mean number of offences per year when compared to each of the other alcohol related harms groups (Figure 11). Those without an alcohol related offence also had significantly less convictions per year (F=74.7, sig. <.001), and had a significantly lower number of convictions across the cohort (F=104.695, sig. <.001).

Figure 11: Offending trends across alcohol related harms

	Diagnosed Problematic Alcohol Use and Alcohol Related Offence	Diagnosed Problematic Alcohol Use	Alcohol Related Offence	Not Diagnosed Problematic Alcohol Use and No Alcohol Related Offence	P-Value
Age at First Police Contact (years)	15.9	19.0	16.8	21.2	**<.001**
Mean Convictions	32.4	20.4	27.3	15.5	**<.001**
Offending Rate Per Year	5.5	3.0	4.4	2.3	**<.001**

The contact patterns were different across the groups, with those with a diagnosed alcohol use disorder and alcohol related offences having significantly more custodial episodes (Figure 12). Despite this, the total number of days spent in custody is not the highest across the four problems associated with alcohol groups, indicating that these custodial episodes are on average shorter in comparison. The diagnosed alcohol group without an alcohol related offence also had fewer episodes however, despite having the highest average number of days spent in custody, suggesting more serious offences attracting longer single sentences for this group.

Figure 12: Length of custody and number of custody episodes across harms associated with alcohol groups

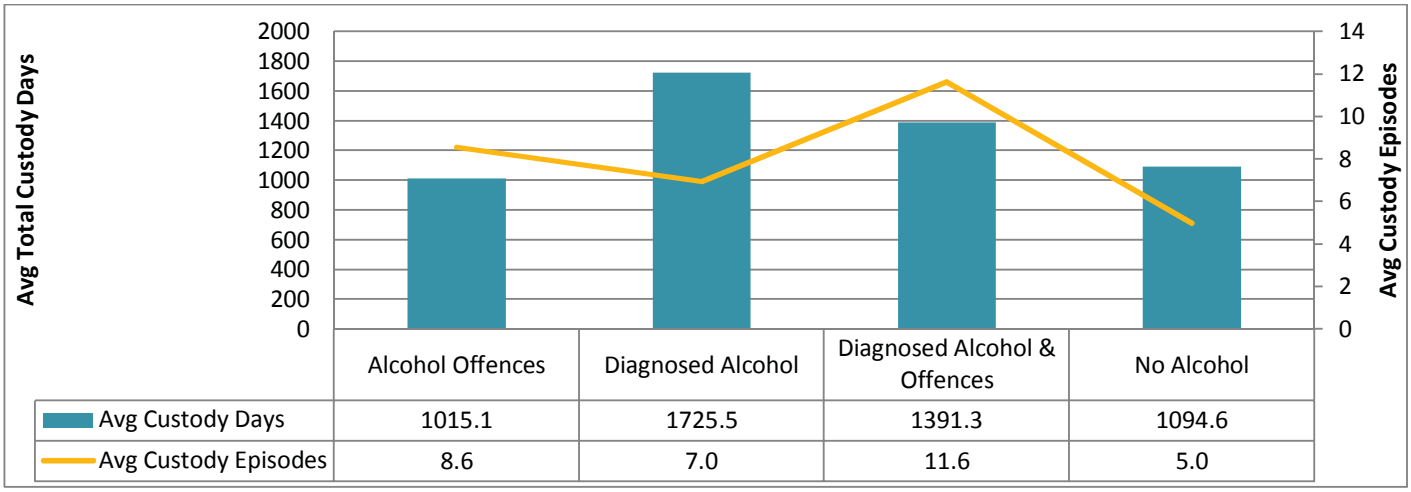


Figure 13 demonstrates the role of alcohol related police events in total police contact. For both groups with alcohol related police contacts, the proportion of these contacts to all police contacts was quite low. Those who had been diagnosed with problematic alcohol use were noted to have a slightly higher proportion of alcohol related police events (13%), when compared to those without a diagnosed alcohol use disorder at 9% of all police events.

Figure 13: Average number of police events and intoxication related events

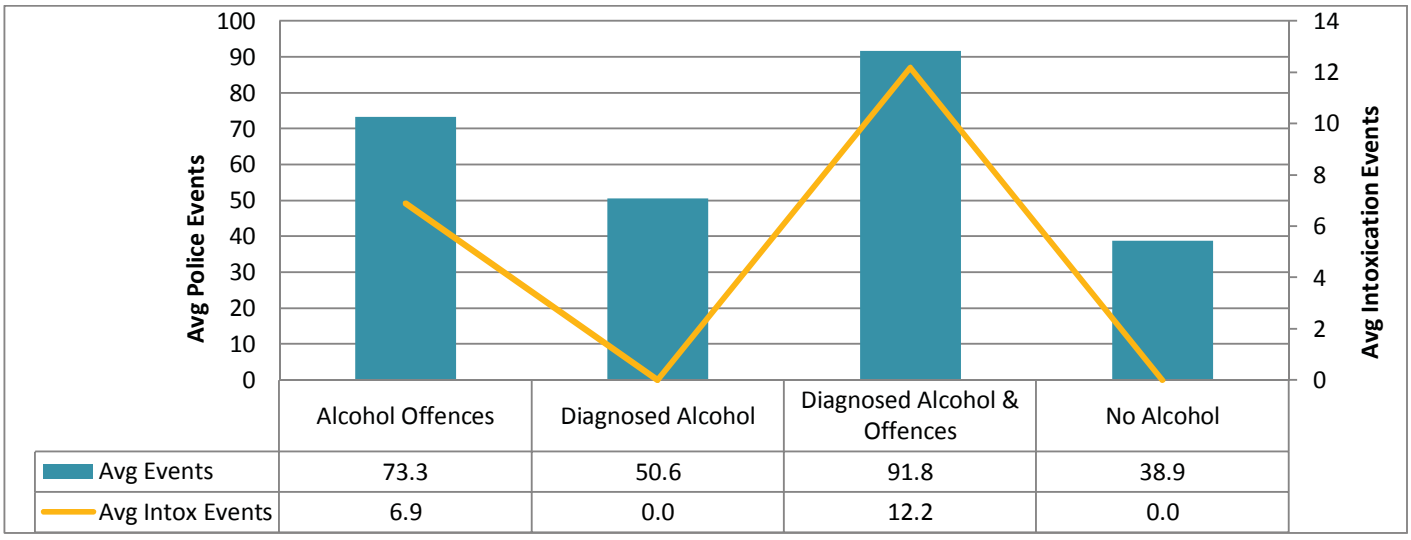


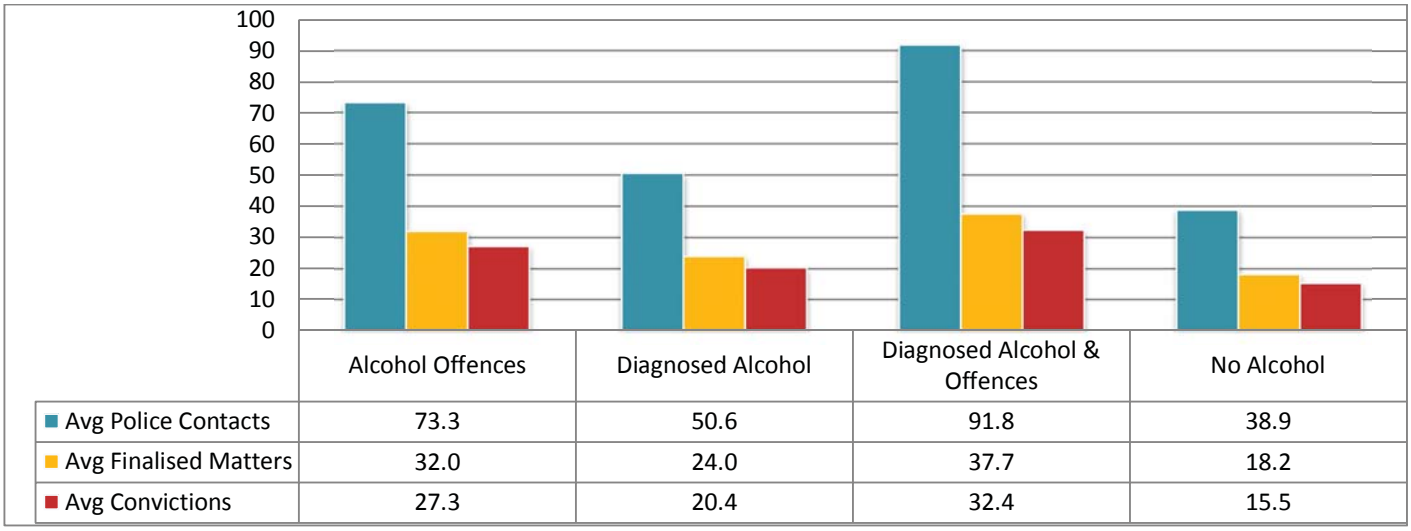
Figure 14 details the top 25 incident categories associated with the police events, where alcohol was recorded by police as either, an associated factor or as an event qualifier. The most frequent incident category was for street offences, whilst assault had the highest proportion of individuals who had this incident type on at least one occasion. Many of these contacts (approximately 25%) are associated with police contact from nuisance type contacts such as police powers being exercised.

Figure 14: Top 25 Police Incident Categories For Police Contacts

Incident categories for police contacts	Individuals	% of alcohol all contacts
Assault	948	13%
Street offence	890	16%
Malicious damage	733	8%
Powers - person search	531	6%
Powers - move on	526	9%
Resist/hinder/assault officer	512	5%
Domestic violence-no offence	509	6%
Stealing	399	3%
Judicial offences	374	4%
Miscellaneous	374	3%
Occurrence only	316	3%
Break and enter	290	2%
Breach AVO	250	3%
Offence against the person other	232	2%
Transport offence	198	2%
Robbery	180	1%
Liquor & registered club act	176	1%
Drug detection	161	1%
Intoxicated person	160	2%
Licit drug offences	160	1%
Stolen vehicle/vessel	124	1%
Goods in custody/receiving stolen goods	116	1%
Intention offence	111	1%
Traffic	98	1%
Sexual offence - assault	94	1%

The pathways from police contact, to court and court outcome across the alcohol groups are displayed in Figure 15. Both groups that were noted to have committed an alcohol related offence had higher levels of police contacts, with a smaller proportion of these contacts progressing to court. Once at court, all groups had similar conviction rates ranging from 82% to 85%.

Figure 15: Police contacts, finalised matters and convictions by alcohol group



	Alcohol Offences	Diagnosed Alcohol	Diagnosed Alcohol & Offences	No Alcohol
Avg Police Contacts	73.3	50.6	91.8	38.9
Avg Finalised Matters	32.0	24.0	37.7	18.2
Avg Convictions	27.3	20.4	32.4	15.5

The next series of figures detail how this contact changes over time. The sampling method resulted in a mixed cohort, with the samples being gathered over a variety of time frames. These following four graphs detail average levels of police contact, custodial episodes by age, and age of police contact. The average contacts were calculated for those who reached the age during the data gathering period. Across the four groups there is substantial variation in the volume of contact and the contact across years, with those with an alcohol related offence and a diagnosed alcohol disorder having much higher average rates of contact prolonged across all ages. Those with only alcohol related offences also had prolonged contact across all ages; however the average number of contacts is much lower than those with a diagnosed alcohol disorder as well.

The cumulative frequency distribution of age of first police contact across the groups also varied. A similar profile of contact was observed for the two groups with alcohol related police contact, with contact occurring consistently earlier than the remaining two groups. Half of these groups had contact with police by the age of 16, similarly to the group with diagnosed problematic alcohol use only group. Despite this, 90% of these two groups had contact with Police as a person of interest by age 21, compared to the diagnosed alcohol group which had a 90% contact rate by 29 years of age. The group with neither a problematic alcohol use diagnosis nor an alcohol related offence had a much more gradual curve and 90% of this group had contact by the age of 33.

Figure 16: Age first police contact, average police events and custodial events by age - diagnosed alcohol and alcohol related offences

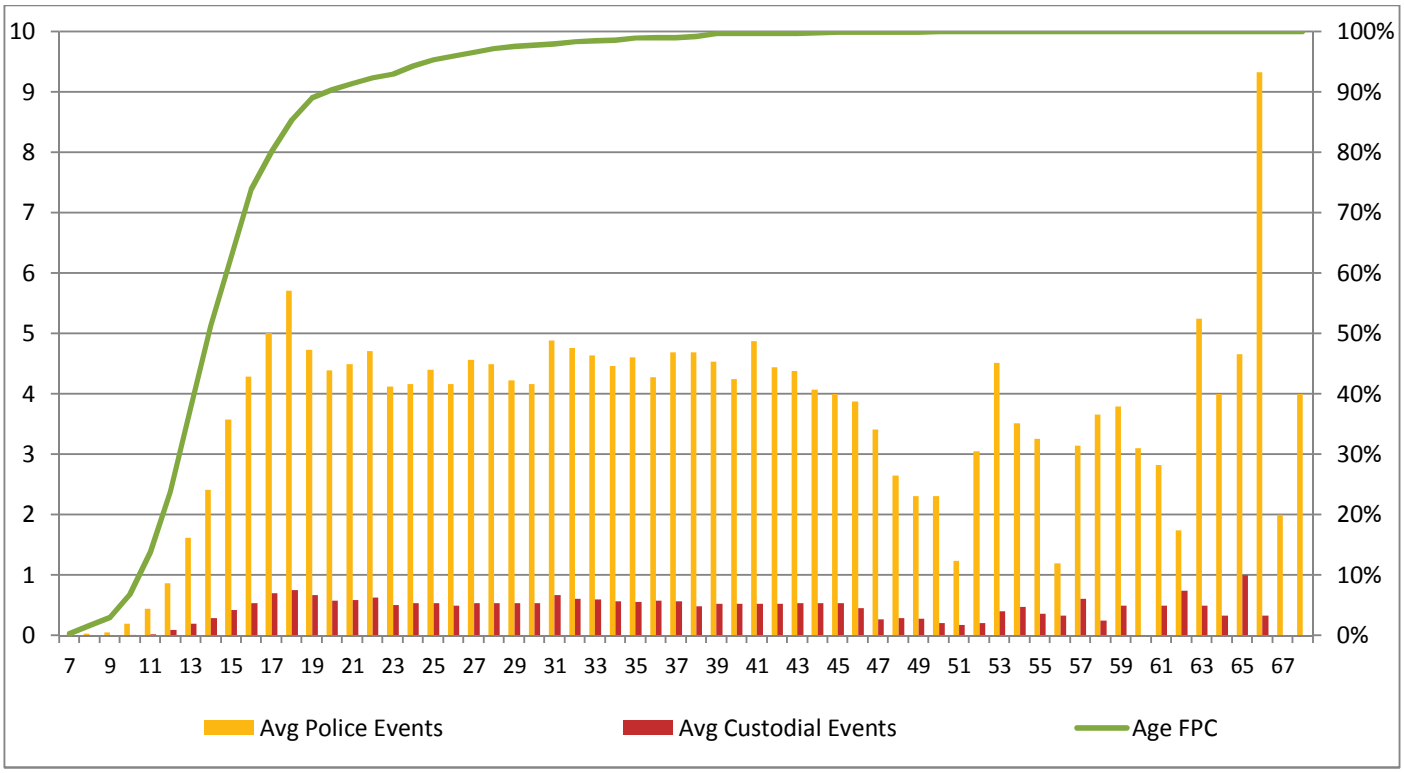


Figure 17: Age first police contact, average police events and custodial events by age - diagnosed alcohol group

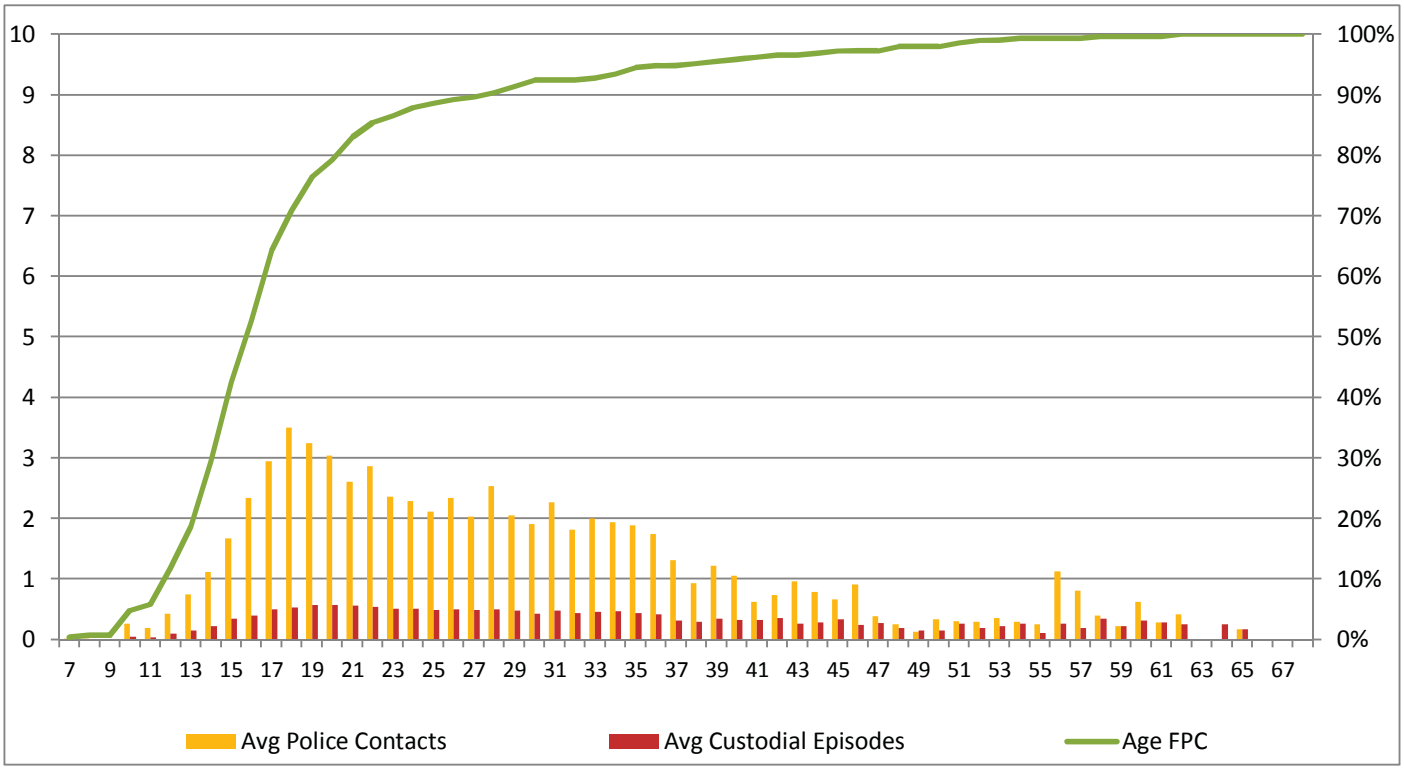


Figure 18: Age first police contact, average police events and custodial events by age - alcohol related offences

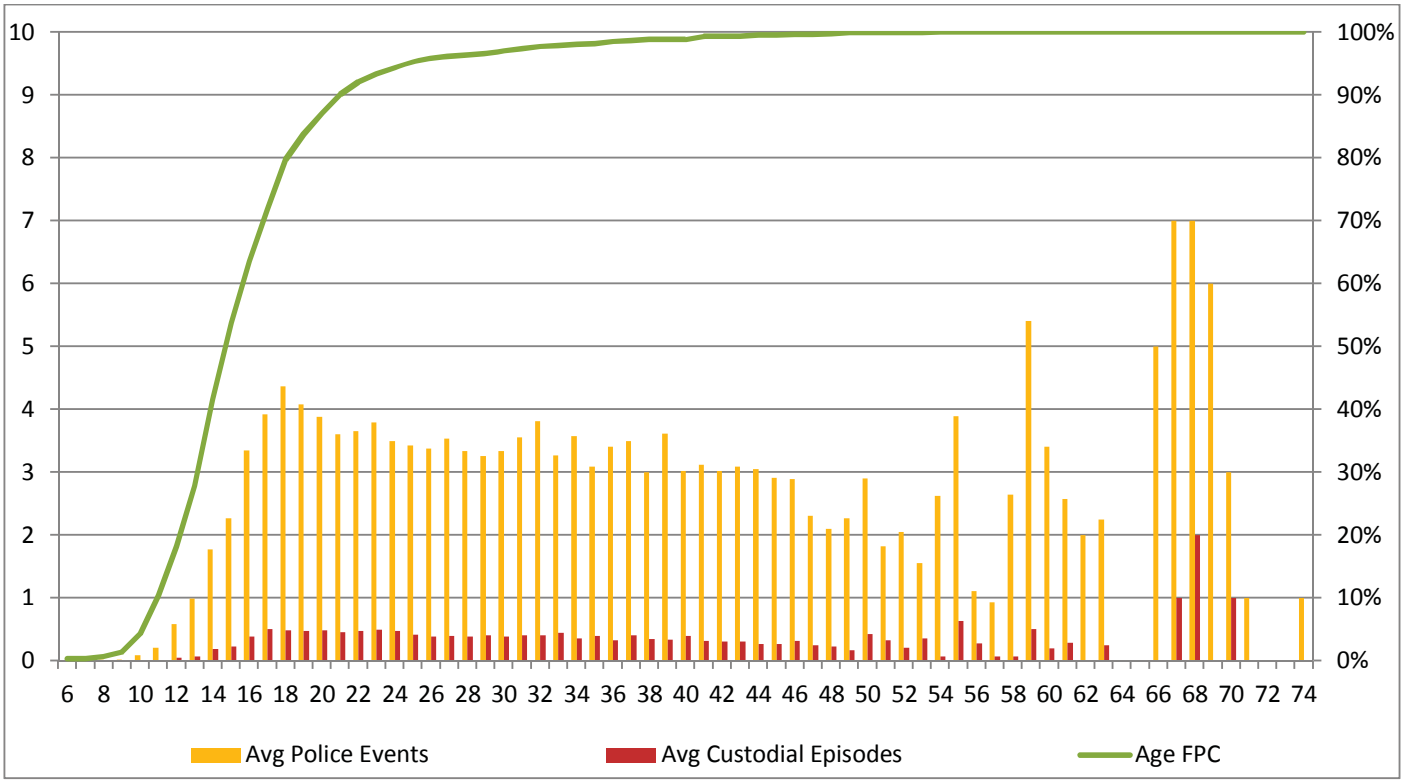
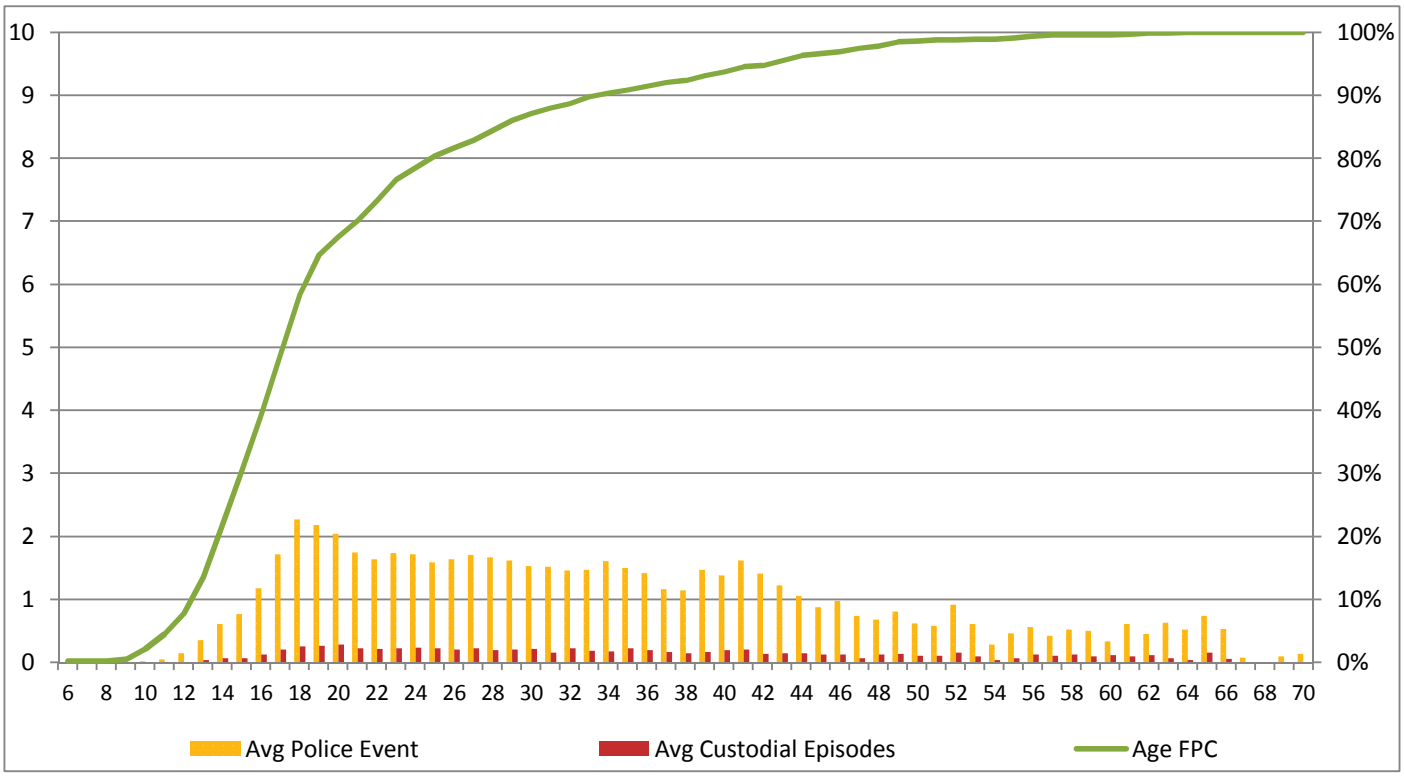


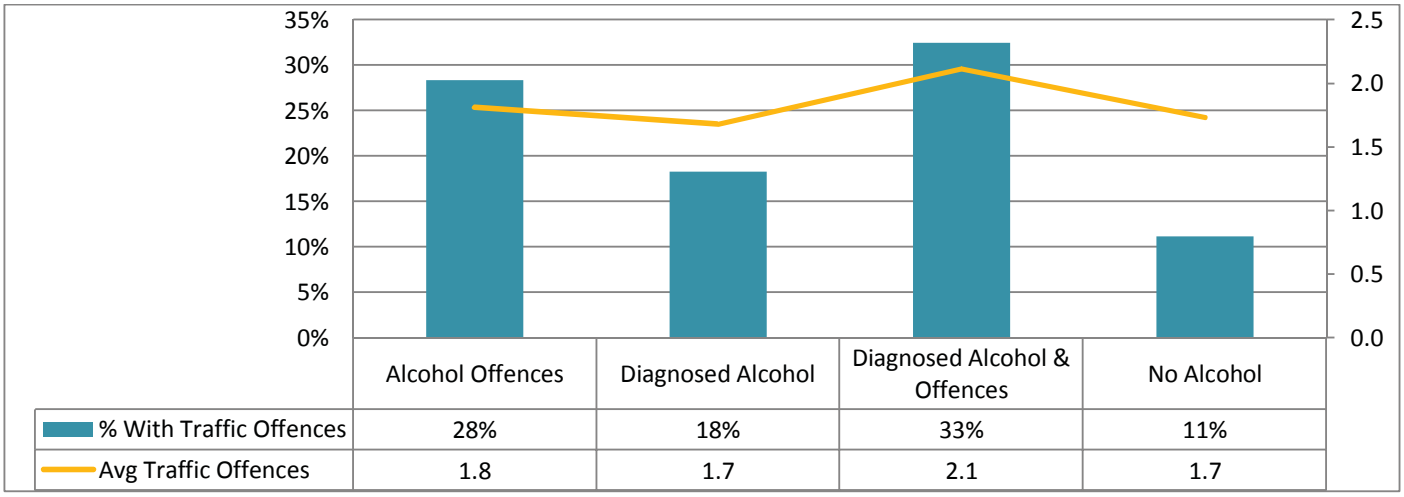
Figure 19: Age first police contact, average police events and custodial events by age - no alcohol group



4.5 Traffic Offences

Due to the different nature of traffic offences committed by the cohort, these offences have been discussed separately. The groups with alcohol related police contact continued to have more contact for driving offences, with almost a third having traffic offences as illustrated in Figure 20. The higher proportion of individuals in these groups with alcohol related traffic offences did not have a higher volume of contact, with similar contacts across the groups, excluding those with a diagnosed alcohol use disorder and an alcohol related offence.

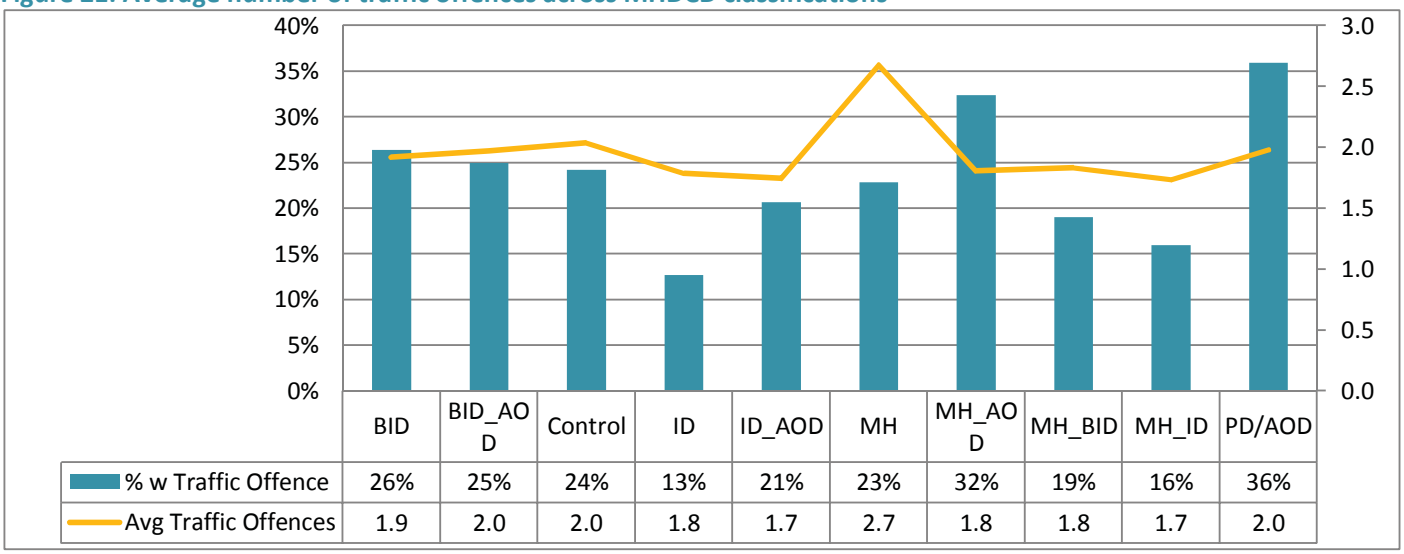
Figure 20: Average number of traffic offences across harms associated with alcohol



	Alcohol Offences	Diagnosed Alcohol	Diagnosed Alcohol & Offences	No Alcohol
% With Traffic Offences	28%	18%	33%	11%
Avg Traffic Offences	1.8	1.7	2.1	1.7

Figure 21 provides this breakdown across the MHDCD study groups. Those falling into the mental health only diagnosis category who had an alcohol related traffic offence, committed a higher average number of traffic offences with few differences across the remaining groups. The MH_AOD and the PD/AOD groups had higher rates of individuals with driving offences, however the average number of driving offences was similar to all groups except the mental health group.

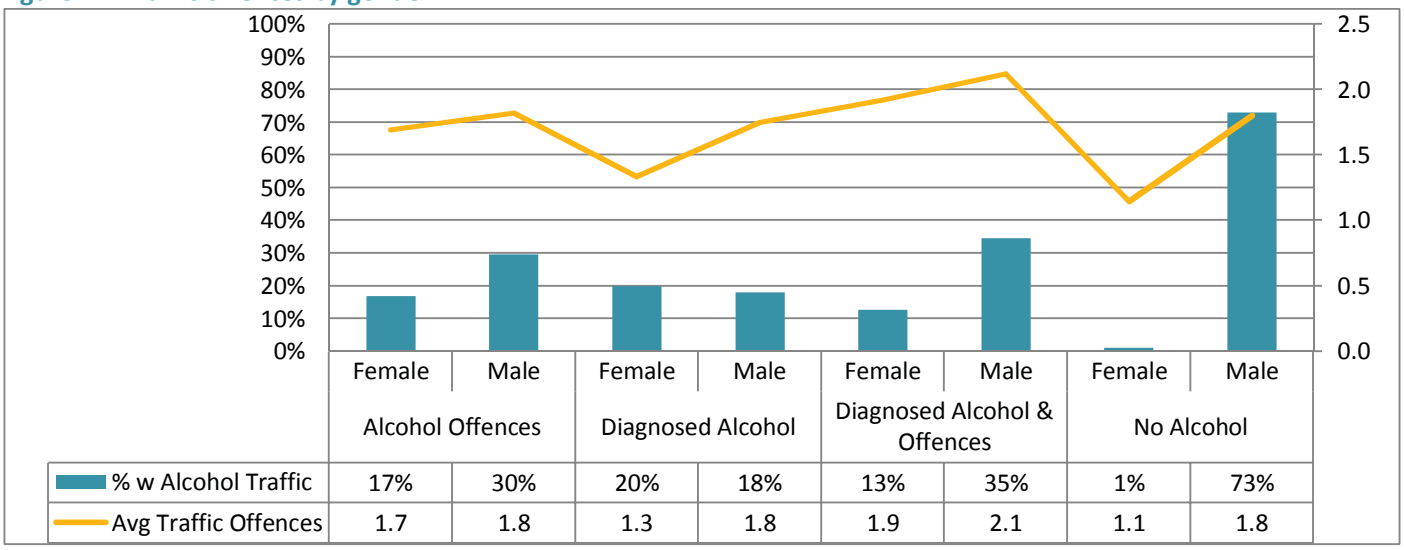
Figure 21: Average number of traffic offences across MHDCD classifications



	BID	BID_AOD	Control	ID	ID_AOD	MH	MH_AOD	MH_BID	MH_ID	PD/AOD
% w Traffic Offence	26%	25%	24%	13%	21%	23%	32%	19%	16%	36%
Avg Traffic Offences	1.9	2.0	2.0	1.8	1.7	2.7	1.8	1.8	1.7	2.0

Males across all alcohol groups had higher rates of alcohol related traffic offences, and a higher proportion of individuals to have ever had an alcohol related traffic offence was observed in all groups aside from the diagnosed alcohol group. As illustrated in Figure 22, males in the no alcohol related problems category had a very high proportion of individuals with a traffic offence (73%), but a similar number of traffic offences to males in other categories.

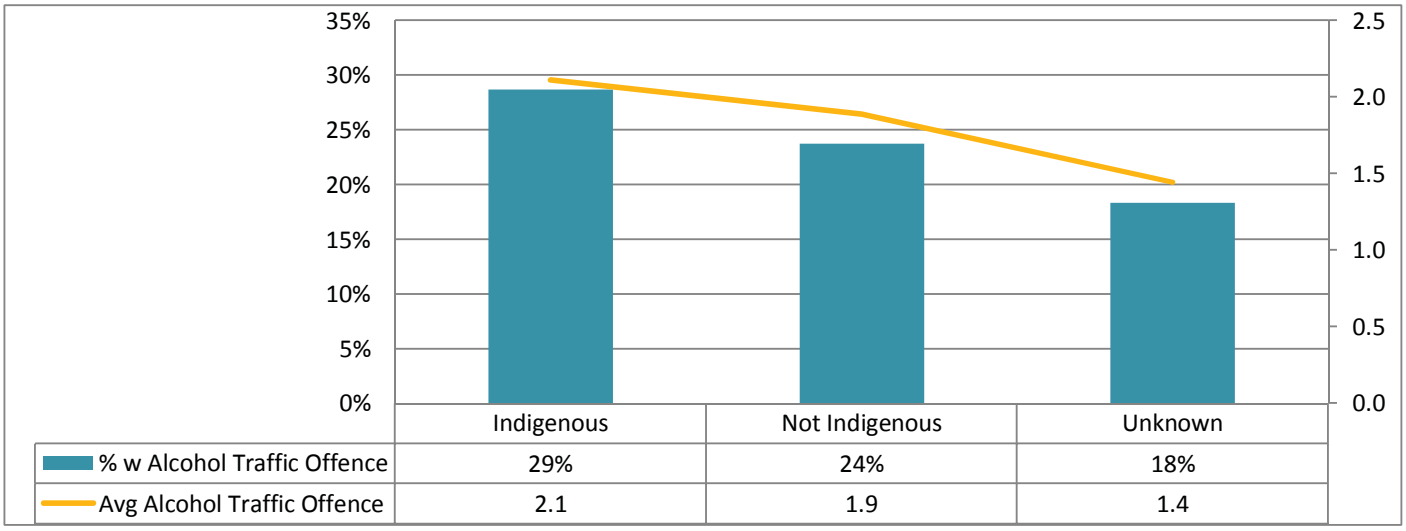
Figure 22: Traffic offences by gender



	Female	Male	Female	Male	Female	Male	Female	Male
	Alcohol Offences		Diagnosed Alcohol		Diagnosed Alcohol & Offences		No Alcohol	
% w Alcohol Traffic	17%	30%	20%	18%	13%	35%	1%	73%
Avg Traffic Offences	1.7	1.8	1.3	1.8	1.9	2.1	1.1	1.8

A higher proportion of Indigenous Australians had alcohol related traffic offences, with 29% of Indigenous people having had an alcohol related traffic offence (see Figure 23). There was however little difference in the average number of alcohol related traffic offences committed by each individual on average.

Figure 23: Traffic offences by Indigenous status



	Indigenous	Not Indigenous	Unknown
% w Alcohol Traffic Offence	29%	24%	18%
Avg Alcohol Traffic Offence	2.1	1.9	1.4

5. Discussion of Limitations

As it has been stated previously, there were several key limitations in the collection of data for this report. While every effort was made to ensure that the definitions for inclusion each of the cohort groups, variations in the operational definitions were observed between and across each of the datasets. Difficulties were also experienced in matching individuals across each dataset due to the prominence of aliases and variations in identity recording practices. Through the use of algorithms such as Soundex and Levenshtein distance, many of these difficulties were minimised through the data collection phase of this study.

In analysing data from the project, it was often apparent that data was recorded inconsistently within databases, and that operational definitions varied between datasets. Particularly in identifying individuals who have experienced harms associated with alcohol, these inconsistencies were minimised by including individuals who showed any indications that they may have experienced harm resulting from alcohol. It should be noted that in the attempt to capture the broad range of effects that alcohol may have, this study has incorporated a broad definition of alcohol related harm. While this definition may be disputed, due to the inconsistent recording practices of many of the agencies from which data was collected, this approach was used to minimise any potential masking of individuals who have experience harm related to alcohol use. A more complete discussion of these limitations can be found in the accompanying protocol and training resource for data linkage.

6. Ethical Considerations

Throughout the data collection and analysis phases of this project, special care was taken to ensure the anonymity of individuals whose data was used in this study. In addition to storing the data on a secure server protected by individual passwords, individuals were protected by assigning each individual a unique identification number that was used in all stages of reporting. Data was not accessible via the internet, and when accessing the network that housed the data, access was granted on a case by case basis. Furthermore, access to the network was limited to those who had access to a secure room that could only be accessed by members of the research team.

All individuals who had access to the data were required to sign a confidentiality agreement that clearly articulated their responsibilities to maintain the confidentiality of the data and any legislation that the data confidentiality is bound by. This agreement was also extended to include any IT staff who may have needed to access the data as part of the database administration. At no stage was any data removed from the secure confines of the network.

7. Bibliography

Carta, B., Happell, B., and Pinikahana, J., 2004, Influence of an educational program on mental health professionals' knowledge and perceptions of problematic alcohol and other drug use, *Australian Journal of Primary Health,* Vol. 10, No. 2, pp. 43-50.

Cleary, M., Hunt, G., Matheson, S., and Walter, G., 2009, Views of Australian mental health stakeholders on clients' problematic drug and alcohol use, *Drug and Alcohol Review,* vol. 28, pp. 122-128.

Daley, D., Salloum, I., and Jones-Barlock, A., 1990, Integrating a dual disorder program in an acute care psychiatric hospital, *Psychosocial Rehabilitation Journal,* vol. 15, no. 2, pp. 45-57.

Draine, J., Salzer, M., and Culhane, D., 2002 Role of Social disadvantage in crime, joblessness, and homelessness among persons with serious mental illness, *Psychiatric Services,* vol. 53, pp. 565- 73.

Fisher, W., and Rivard, J., 2010, The research potential of administrative data from state mental health agencies, *Psychiatric Services,* vol. 61, no. 6, pp. 546-48.

Johnson, H., 2004, Key Findings from the drug use careers of female offenders study, *Trends and Issues in Crime and Criminal Justice,* no. 289, Australian Institute of Criminology, Canberra.

Junginger, J., Claypoole, K., Laygo, R., and Crisanti, A., 2006, Effects of serious mental illness and substance abuse on criminal offences, *Psychiatric Services,* vol. 57, no. 6, pp. 879-882.

Ladd, B., McCrady, B., Manuel, J., Campbell, W., 2010, Improving the quality of reporting alcohol outcome studies: Effects of the CONSORT statement, *Addictive Behaviours,* vol. 35, pp. 660-66.

Makkai, T. and Payne, J., 2003, Drugs and crime: a study of incarcerated male offenders, *Research and Public Policy Series*, no. 52, Australian Institute of Criminology, Canberra.

McNiel, D., Binder, R., and Robinson, J., 2005, Incarceration Associated with homelessness, mental disorder, and co-occurring substance abuse, *Psychiatric Services,* vol. 56, pp. 840-46.

McDermott, F. and Pyett, P., 1994, Co-existent psychiatric illness and drug abuse: A community study, *Psychiatry, Psychology and Law,* vol. 1, no. 1, pp. 45-52.

Nesvag, R., Lange, E., Færden, A., Barrett, E., Emilsson, B., Ringen, P., Andreassen, O., Melle, I., and Agartz, I., 2010, The use of screening instruments for detecting alcohol and other drug use disorders in first-episode psychosis, *Psychiatry Research*, vol. 177, pp. 228-34.

Selleck, S. and Redding, B., 1998, Knowledge and Attitudes of registered nurses towards perinatal substance abuse, *Journal of Obstetric and Gynecologic and Neonatal Nursing, vol. 27, no. 1, pp. 70-77.*

Sher, K., Grekin, E., and Williams, N., 2005, The development of alcohol use disorders, *The Annual Review of Clinical Psychology,* vol. 1, pp. 493-523.

Silins, E., Sannibale, C., Larney, S., Wodak, A., and Mattick, R., 2008, Residential detoxification: Essential for marginalised, severely alcohol- and drug-dependent individuals, *Drug and Alcohol Review,* vol. 27, pp. 414-19.

Todd, J., Green, G., Harrison, M., Ikuesan, B., Self, C., Pevalin, D., and Baldacchino, A., 2004, Social Exclusion in clients with co-morbid mental health and substance misuse problems, *Social Psychiatry and Psychiatric Epidemiology,* vol. 39, pp. 497-502.

Wancata, J., Benda, N., Windhaver, J., and Nowotny, M., 2001, Does Psychiatric co-morbidity increase the length of stay in general hospitals?, *General Hospital Psychiatry,* vol. 23, no. 1, pp. 8-14.

Weitzman, E., and Chen, Y., 2005, Risk modifying effect of social capital on measures of heavy alcohol consumption, alcohol abuse, harms, and second-hand effects: national survey findings, *Journal of Epidemiological Community Health,* vol. 59, pp. 303-09.