

# **ALCOHOL AND OTHER DRUG USE IN WESTERN AUSTRALIA: IMPLICATIONS FOR THE WORKPLACE**

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## **Introduction**

The basis for seeking to prevent alcohol and other drug (AOD) related problems in the workplace is well established and has arisen from a number of concerns. These have been grouped into the following four broad categories by Nicholas et al (1996):

- Safety;
- Productivity and efficiency;
- Employee and community health;
- Morality and legality.

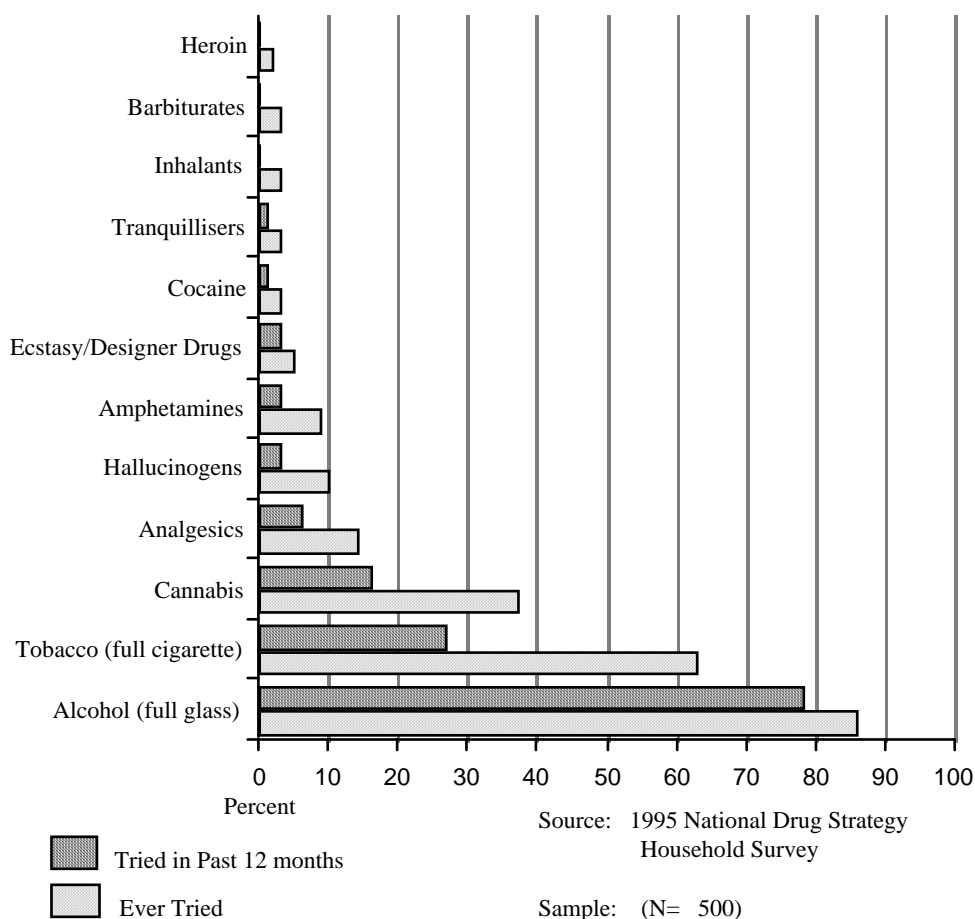
Traditionally, responses to AOD problems in the workplace have focused on identifying individual employees with drinking or other drug problems followed by referral to employee assistance programs (EAPs) for treatment. Holder (1990) considers that the challenge is to build on this positive base in a way that goes beyond defining workplace AOD problems only in terms of individual impairment. He argues that if the goal is to prevent AOD harm in the workplace then the response should focus on the problem and the context, not just the individual.

Since the workplace is part of a larger community system, any understanding of AOD problems in the workplace needs to include an understanding of the broader community in which the AOD use takes place. Part of this understanding is an appreciation of community patterns of use and harm. It is almost axiomatic that a workplace located in a community with high consumption of AODs, will experience more AOD related problems than a similar workplace located in community with low consumption. The type of drug most commonly used and the method of use are also important factors in understanding the sort of harm that is likely to occur in a workplace.

Western Australia has considerable diversity in climate, lifestyle and population, which in itself suggests that AOD patterns would vary considerably across the state. Fortunately this is backed by some excellent data gathering systems and a number of particularly salient research reports, which when put together provide a sound, empirically based state profile of AOD use likely to cause the most problems to within the workplace.

## **AOD Use in Western Australia**

As part of the 1995 National Drug Household Survey (National Drug Strategy Household Survey, 1996) a stratified sample of 500 Western Australians were interviewed on the patterns of AOD use. The percentage who have ever tried and the percentage who have used in the last 12 months are presented in Figure 1.



**Figure 1: Drug Use in Western Australia 1995**

The great majority (86%) have tried at least one full glass of alcohol and 78% are current users by the criterion of having had a least one drink in the last 12 months. Ever use and particularly current use of all other drugs is much lower. Most Western Australians surveyed had smoked at least one cigarette (63%), but only 27% were current smokers. In the case of illicit drugs, the figures were even lower. Cannabis was the most popular illicit drug, with 37% of the sample having ever tried it. However, only 16% reported current use. The percentage of the survey sample who reported current use of any other illicit drug was very small and in fact it is probably not that useful to quote actual percentages because such small numbers do not give an accurate picture of true population use.

### AOD Related Harm in Western Australia

The National Drug and Household Survey is one indicator of AOD use in Western Australia, but it does not provide any information on associated harm. This is very difficult to do empirically in the case of illicit drugs, because of the nature of their use. However in the case of alcohol use there is an extensive research tradition of attempting to quantify the relationship between consumption and harm (Cherpitel, 1993; Holder, 1993; Rabow and Watts, 1983). An innovative project has examined the relationship between consumption and several commonly accepted indicators of related harm across all regions of the state. This project, the Measurement of Alcohol Problems for Policy (MAPP), uses a computer based spatial technique (Geographic Information Systems or GIS) to construct a comprehensive database containing state-wide data sets of alcohol consumption and indicators of related harm (The Measurement of Alcohol Problems for Policy Project, 1995). Data for the 1991/1992 financial year was the first to be brought together in this way because contemporaneous socio demographic information was available from the 1991 census.

The GIS technique allows systematic exploration of the relationship between alcohol sales and alcohol-related problems across different areas of Western Australia and because this information can be spatially aggregated at a number of different levels, ranging from the whole state to particular local regions, there can be better understanding of regional variation. Additionally, relevant information can be made available to affected communities, including workplaces, to stimulate and support informed participation in local planning and decision making processes. Figure 2 shows the level of per capita alcohol consumption in 130 regions of Western Australia. This varies from 1.49 litres to 29.1 litres. This variation across regions

**Figure 2: Per Capita (15 years and over) Consumption of Alcohol in 130 Regions of Western Australia for 1991/92**



is considerable and is associated most strongly with the following available indicators of alcohol harm:

- night time assaults;
- night time positive driver breath tests;
- night time minor traffic crashes;
- acute hospital morbidity weighted by alcohol aetiological fractions (English et al, 1995).

The MAPP study not only indicates that alcohol consumption is a strong predictor of harm in Western Australia, but it also identifies those regions with particularly high rates of alcohol related harm. The implication for business is that a workplace located in a region with high rates of consumption and harm is likely to be reflect the harm experienced in surrounding communities.

### **The Cost of AOD Use to Western Australian Business**

An economic perspective on AOD harm in Australia has been provided by Collins and Lapsley (1991, 1996). These researchers developed a methodology for estimating the cost of AOD abuse and used this to calculate the social cost of abuse in dollar terms. They had three categories of drugs; alcohol, tobacco and illicit drugs and apportioned costs to three sectors of the community; individuals, governments and business. A summary of their findings for 1992 is presented in Table 1.

In Western Australia tobacco is the most costly drug, with community wide social costs of \$857.9 million. Total alcohol costs are less (\$363.8 million), but they fall disproportionately on business (\$324.7 million), because the great majority of people who receive medical treatment as a result of alcohol problems are in employment. In comparison, illicit drug use in Western Australia costs business considerably less at \$63.7 million.

### **AOD Use by Australian and Western Australian Workforces**

Webb et al (1990) in a survey of workers at a heavy manufacturing plant in the Hunter region of New South Wales found that 8.8% of workers were drinking at harmful levels. Hagen, Egan and Eltringham (1992) surveyed a broad range of industries in Victoria and found that 6.9% of workers were drinking at harmful levels. A consumption survey of workers at several Hunter Valley coal mines found that between 8.7% and 17.8% were drinking in a hazardous or harmful manner (Hunter Centre for Health Advancement, 1996). Hazardous drinking has been defined by the National Health and Medical Research Council (NHMRC) as more than four drinks per day for men and more than two drinks per day for women. Harmful drinking has been defined as daily consumption in excess of six drinks for men and four drinks for women (Pols and Hawks, 1992).

In Western Australia there are only two recent documented studies of workforce AOD use (Scotland, Hyde and Midford, 1996; Midford, Marsden, Phillips and Lake, 1997). These two studies collected data on AOD use by three mining related workforces. Two of the workforces (A and B) live and work in the Northwest of the state. The third (workforce C) essentially comprises two groups, Perth based head office staff and fly in/fly out remote location staff. Both groups do however maintain their households in Perth.

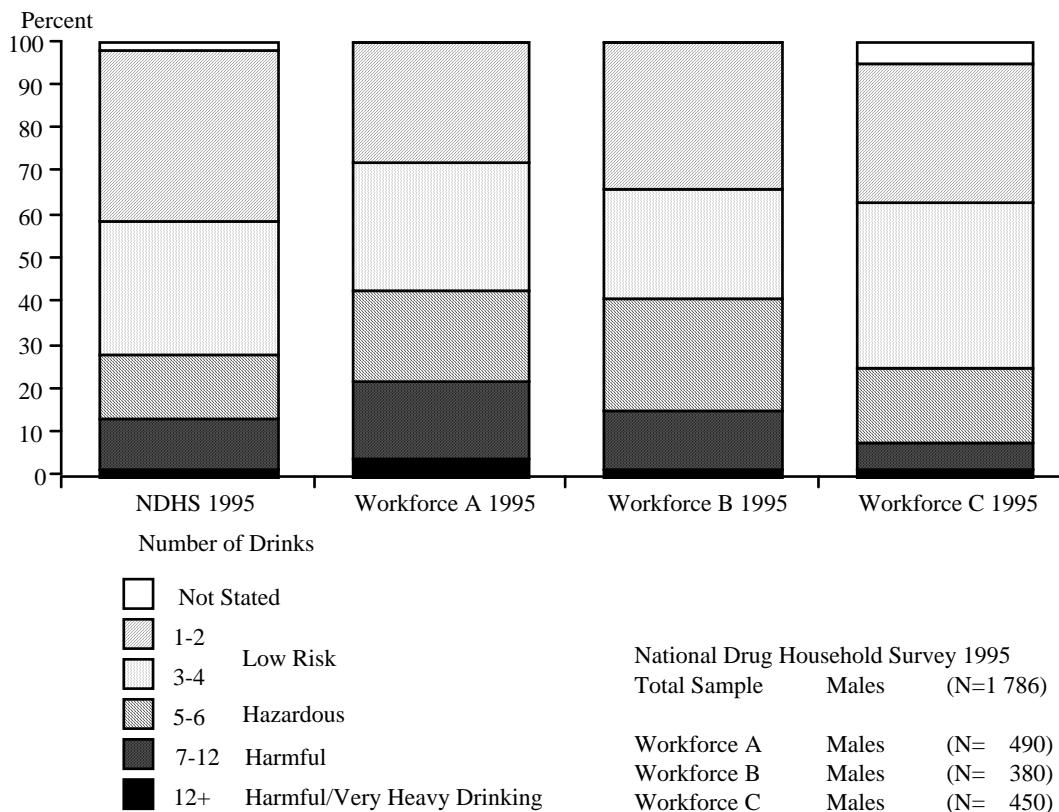
**Table 1: Social Costs Associated with Use of Alcohol and Other Drugs: Australia and Western Australia 1992**

		Type of Drug	Borne by individuals	Borne by business	Borne by governments
			\$m	\$m	\$m
Australia	Total Quantified tangible costs	Alcohol	264.6	3418.0	147.0
		Tobacco	5630.2	2286.0	646.7
		Illicits	313.8	670.3	483.6
WA	Total Quantified tangible costs	Alcohol	25.1	324.7	14.0
		Tobacco	534.9	321.7	1.3
		Illicits	29.8	63.7	45.9
			%	%	%
	Percentage of total tangible costs borne by each sector	Alcohol	6.9	89.3	3.8
		Tobacco	58.3	35.0	6.7
		Illicits	21.4	45.7	33.0

Australian figures taken from Collins and Lapsley, 1996.

Western Australian figures calculated as a proportion of the national figures, based on state population.

The findings of these Western Australian studies were broadly comparable to the Victorian and New South Wales studies, although differences in methodology do not allow direct comparison. However, because the Western Australian studies used the same quantity/frequency questions as the 1995 National Drug Household Survey (National Drug Strategy Household Survey, 1996), their results can be directly compared with national consumption patterns. Male workers living in the Northwest (workforces A and B) reported higher usual consumption, with substantially more usual hazardous

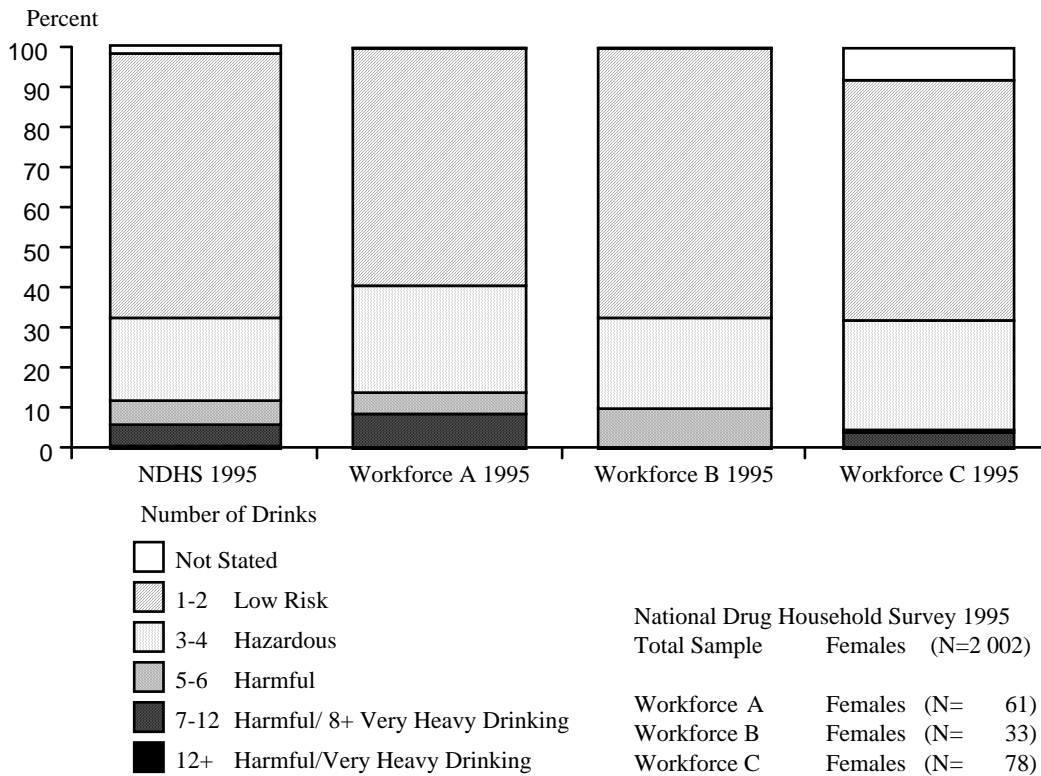


**Figure 3: How Many Drinks do Males in Three Mining Related Workforces Usually Have**

(5-6 drinks in a session) and harmful (7-12 drinks in a session) consumption in both groups (Pols and Hawks, 1992) (see Figure 3). However male workers in all three Western Australian workforces reported drinking more often and more frequently in excess of recommended limits than their national sample counterparts.

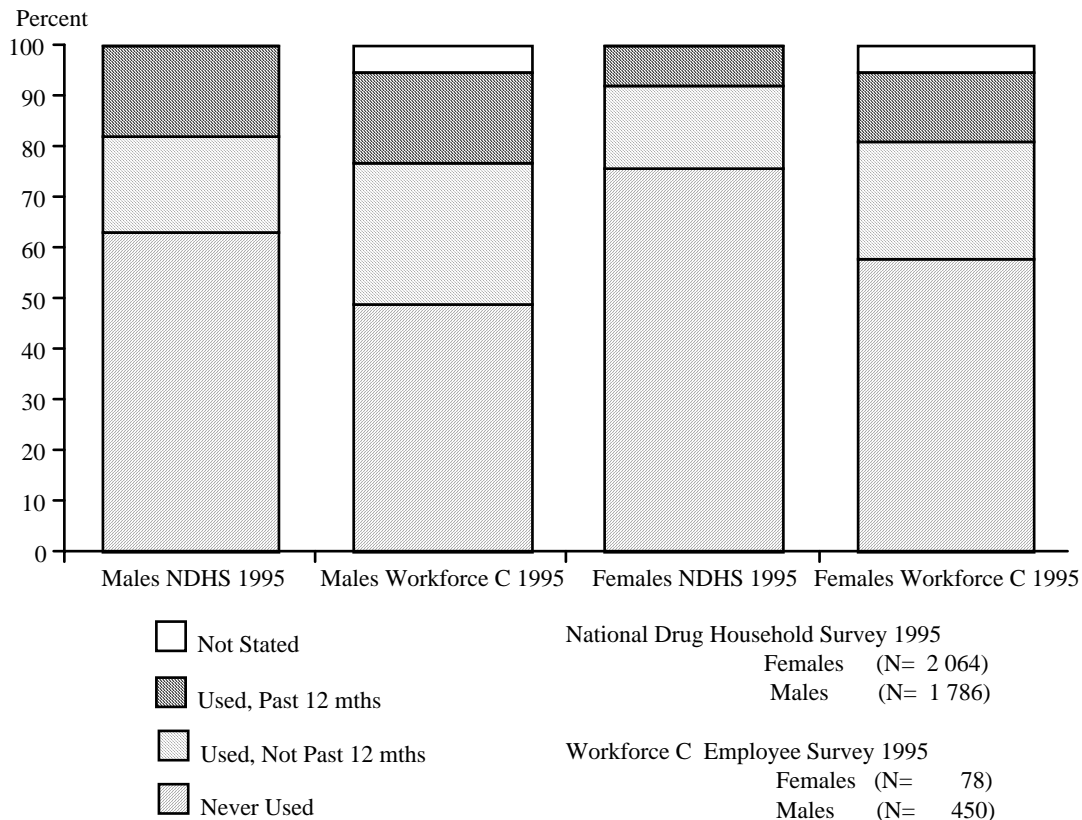
Females in all four samples reported usually drinking comparable quantities of alcohol (see Figure 4). However, females in the three workforces reported usually drinking more frequently and more often exceeding the recommended daily limit than their national sample counterparts. The proportions of males and females in the three workforces drinking in the top risk categories for quantity, frequency and exceeding recommended limits were broadly similar to the respective national samples.





**Figure 4: How Many Drinks do Females in Three Mining Related Workforces Usually Have**

The Perth based workforce C was also asked about cannabis use. Their self reported use is presented in Figure 5, alongside use reported by the national sample, surveyed as part of the National Drug Household Survey (National Drug Strategy Household Survey, 1996). Ever use by both male and female workers is higher than for their national counterparts. Use in the last 12 months by males is comparable for both samples. Use in the last 12 months by female workers is greater than for national sample females.



**Figure 5: Self reported Cannabis Use by a Perth Based Mining Related Workforce**

## Conclusions

Illicit drug use is often seen by business as the 'the drug problem', but empirical evidence would suggest otherwise. The National Survey data for Western Australia indicates that the prevalence of illicit drug use is relatively small in this state in comparison to alcohol use. The dollar costs borne by business for illicit drug use is estimated at about 20 percent of the costs borne for alcohol or tobacco use. Added to this, the relationship between illicit drug use, impairment and harm is less clear than is case with tobacco and alcohol. Taken in concert, these indicators give a sense of proportion as to what drugs are likely to be causing the greatest problems in Western Australian business. Such an appraisal of state drug use patterns, harms and costs is also a starting point for identifying response measures likely to produce the most benefit.

While tobacco use costs business almost as much as alcohol, the evidence suggests that drug programs aiming to reduce workplace harm would do well to focus primarily on alcohol. The harms associated with tobacco use tend to be chronic in nature and prevention program dividends are likely to be long term and difficult to evaluate in terms of business benefit. Alcohol, on the other hand, has a far greater component of acute harm, which if reduced, produces immediate benefit for business. Mining operations in Western Australia provide a good case in point. Mines tend to be concentrated in the high consumption areas of the state illustrated in Figure 2, so it is almost inevitable that their workforces will reflect the high consumption of the region in which they live. They are also likely to reflect the high levels of alcohol related injury morbidity, which accompanies high consumption. This in turn will reflect on workplace safety, productivity, rates of sick leave etc. A program that decreases consumption in these regions is likely to produce immediate and measurable benefits for local mining operations.

This supposition of higher consumption by mining workers is supported by the surveys of employees in several mining related workforces reported in this paper. These data indicate that a large proportion of the surveyed workforces were drinking heavily, but that out of control drinking, as indicated by the proportion drinking in the top risk consumption categories, was no greater than in the general population. Such a finding is useful in terms of program planning because it suggests that drinking is being controlled, albeit at a high level. Accordingly, if drinking can be controlled at one level, an intervention program can reasonably assume that it will be possible to achieve similar control at a lower level.

There are a number of other factors which work in favour of an alcohol intervention being effective .

- The problems can also be dealt with more openly because alcohol is a legal drug.
- Most heavy drinkers appear to drink up to a level they identify as a health risk and consequently may be receptive to messages about the health benefits of reducing their consumption (Jones, 1993).
- Most employees who have problems with alcohol do not want to risk losing their job.

Data from three mining related workforces have been used to illustrate the nature of the AOD problem in Western Australian business, partly because the issue is more topical in this industry, but also because there is little other objective information available. However, the problems are not confined to the mining industry. The national data gives an indication of the sheer numbers of people who at some time drink in a high risk manner. Most of these would be in employment, which suggests that the workplace is going to bear the consequences. Putting effort into increasing responsible drinking behaviour is likely to be a cost effective way of reducing workplace problems associated with drug use. By way of comparison, workplace programs that emphasise problems of illicit drug use seem difficult to justify in light of the available objective evidence.

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