

Alcohol Related Harm in Western Australia

**Drug and Alcohol Office
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Introduction

Alcohol is the most commonly used drug in Australia. The proportion of the West Australian population who had recently consumed alcohol increased from 80% in 1995 to 86% in 1998 according to the National Drug Strategy Household Survey (1998). The harm caused by alcohol misuse has been documented over the years. The purpose of this report is to provide health services with an updated summary on alcohol-related harm in Western Australia during the period 1990 to 1998.

The Alcohol and Drug Policy Branch (ADPB) purchased datasets on alcohol-related harm from the National Drug Research Institute (NDRI). These datasets are a component of the National Alcohol Indicators Project which will document national and state/territory trends of alcohol-related harm. The Western Australian datasets have been aggregated to a health service level and Appendix 2 outlines the data held by the ADPB. Appendix 1 contains summary information by WA Health Department Regions.

This report contains state-wide information on:

- Alcohol caused mortality and morbidity (frequencies and rates per 10,000 of the population. Chronic and acute morbidity are presented in separate graphs. (Figure 1 to Figure 2b).
- Number of active licensed outlets and rate of licensed premises per 1,000 of the population. (Figure 3).
- Trends in alcohol sales/consumption data by alcohol type (spirits, wine and beer) (Figure 4).
- Number of assaults, percent of all assaults and rate per 10,000 of the population occurring between 2.00pm and 6.00am (Figures 5a to 5c).
- Number of positive BAC (.05 and above) recordings, positive BAC recorded as a percentage of all random breath tests and rate of positive BAC recorded per 10,000 of the population (Figures 6a to 6c).
- Number of deaths and injuries resulting in hospitalisations through road accidents and positive accident-related BAC recordings of drivers at different time periods the rate per 10,000 of the population (Figures 7a and 7b).

Methodology

Unless otherwise stated, the estimated resident population (15 years and over) has been used to calculate crude rates as this is the population most at risk for alcohol-related harm.

The number of deaths and hospital admissions caused by alcohol consumption were estimated using the aetiologic fractions method (English et al 1995).

Crude rates were calculated by dividing the estimated number of cases by the population and then multiplying it by 10,000 to express the rates as per 10,000 population. Crude rates do not take into account the age structure of the population, rather they represent the actual experience of the population.

Results

Mortality

Alcohol-caused deaths account for approximately 3% of deaths from all causes per annum in Western Australia (Unwin et al, 1997).

Figure 1 shows the frequency and the crude rate (per 10,000 of the population) of deaths caused by alcohol in WA from 1991 to 1998.

Summary findings

- There were 2,590 deaths caused by alcohol (using aetiological fractions) in Western Australia during the period 1991 to 1998 or approximately 323 deaths per annum.
- The number of alcohol-caused deaths ranged from 294 in 1991 to 304 in 1998 with the highest number of 350 occurring in 1996.

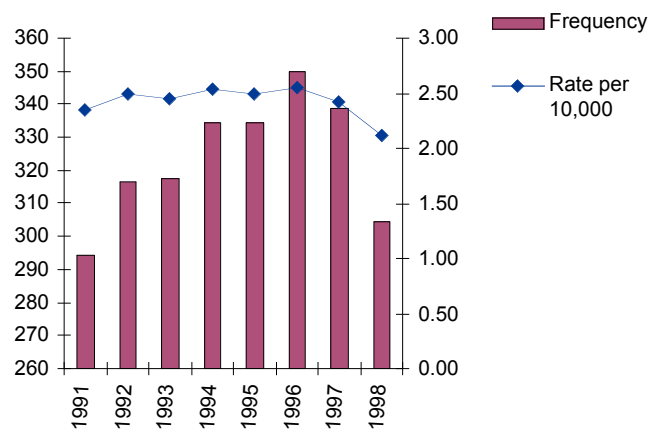


Figure 1: Frequency and rate of deaths caused by alcohol, WA, 1991-1998

Morbidity

Alcohol-caused admissions represent approximately 2% of admissions from all causes per annum in Western Australia (Unwin et al, 1997).

While data is shown from 1990/1991, it should be noted that prior to 1993, the data is not considered to be as accurate when compared to later years. In 1993 clinical coders were installed in hospitals and this resulted in more accurate recording of morbidity data. For this reason, the points for comparison of trends will be 1993/1994 and 1997/1998.

Figure 2 shows the frequency and the crude rate (per 10,000 of the population) of alcohol-caused hospital admissions. Figures 2a and 2b show the rate of admissions (per 10,000 population) for acute and chronic conditions respectively caused by alcohol.

Summary findings

- There were 67,075 alcohol-caused (using aetiological fractions) hospital admissions in Western Australia or 8,384 admissions per annum during the period 1991/1992 to 1997/1998.
- The rate of alcohol-caused admissions has declined after a peak in 1995/1996.
- Acute alcohol-caused admission rates have remained relatively stable after an initial increase
- Chronic alcohol-caused admissions rates have declined.

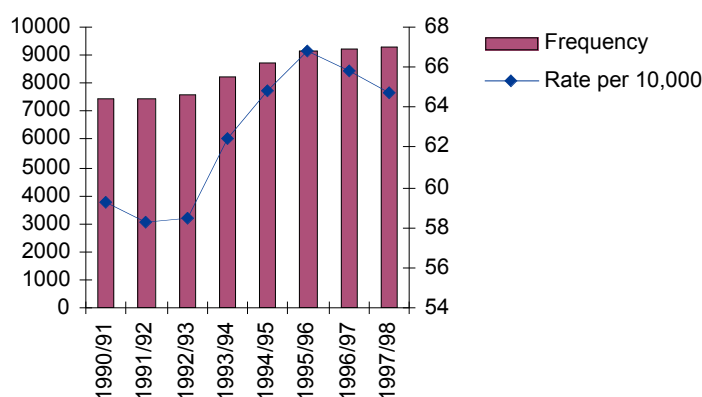


Figure 2: Frequency and rate of hospital admissions caused by alcohol, WA, 1991-1998

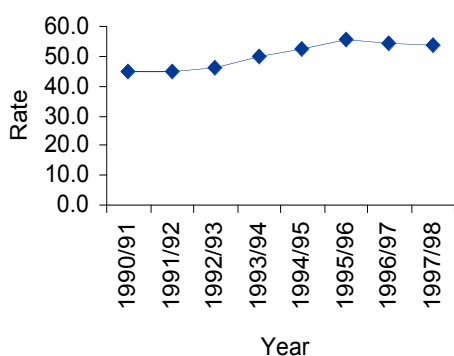


Figure 2a: Rate of alcohol-caused admissions for acute conditions, WA, 1991-1998

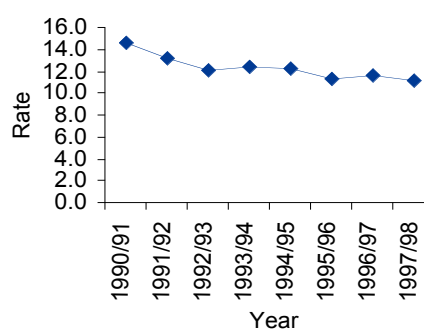


Figure 2b: Rate of alcohol-caused admissions for chronic conditions, WA, 1991-1998

Liquor licensing

Figure 3 shows the number and rate (per 1,000 of the population) of active liquor licensed outlets in WA during the period 1991/1992 to 1997/1998.

Summary findings

- After a steady increase in the rate of outlets, which reached a peak in 1994/1995, there was a slight drop in 1995/1996. In 1997/1998 the rate is almost up to the 1994/1995 level.

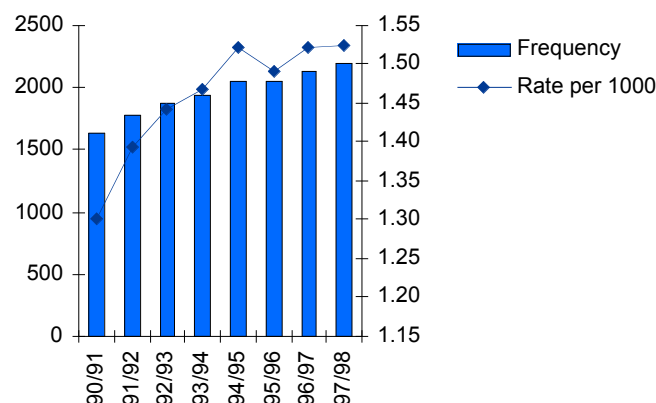


Figure 3: Number and rate (per 1,000) of active liquor outlets, WA 1990/1991 to 1997/1998

Alcohol sales 1990/1991 to 1997/1998

Figures 4a and 4b show the trend in alcohol consumption per capita (based on service population of persons aged 15 years and older)¹ in WA by type of alcohol. The figures for all spirits and all alcohol are lower than previous estimates due to the difference in the conversion factors used for spirits.

Summary findings

- Per capita consumption of all alcohol has risen from 10.15 in 1990/1991 to 10.62 in 1998/1999 (litres of absolute alcohol).
- Per capita consumption of all beer has decreased, while per capita consumption of all wine and all spirits has increased from 1990/1991.

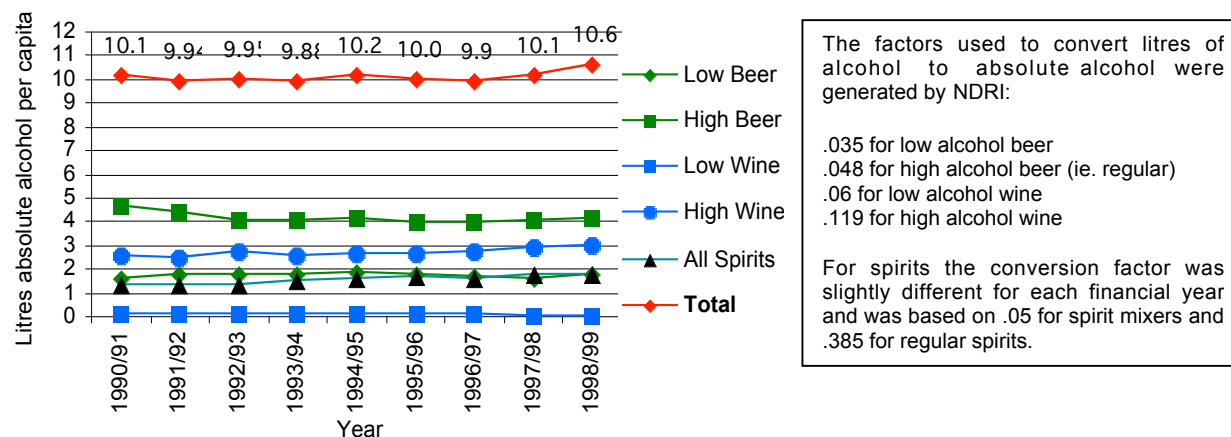


Figure 4: Trends in per capita consumption of litres of absolute alcohol, WA 1990/91 to 1997/98.

¹ Derived by NDRI based on a 'tourism' factor and an 'away' factor (average number of days a person spends away from their area of residence).

Assaults

During the period 1991/1992 to 1997/1998 there were 87,302 reported assaults in Western Australia or 12,472 assaults per annum. When aetiological fractions were applied, English et al (1995) estimated that 47% of all assaults were caused by consumption of alcohol, therefore over 5,800 assaults per annum in Western Australia are alcohol-related.

Previous studies conducted by NDRI researchers and others have indicated that night-time assaults are an accurate proxy measure for alcohol-related violence, as up to 90% of night-time assaults have been shown to be alcohol-related. (Brinkman et al, 1999).

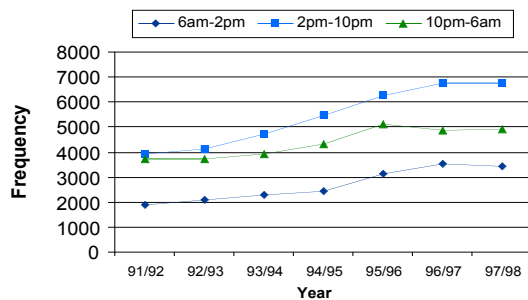


Figure 5a: Number of assaults occurring during different time periods, WA 1991/92 to 1997/98.

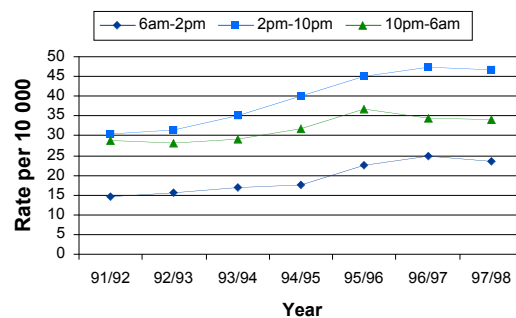


Figure 5b: Assaults occurring at different time periods per 10000 of the population, WA

Summary findings

- On average approximately 2,600 or 21% of assaults per annum occurred between 6am and 2pm.
- On average approximately 5,400 or 43% of assaults per annum occurred between 2pm and 10pm.
- On average approximately 4,300 or 36% of assaults per annum occurred between 10pm and 6am.

Other findings include:

- In approximately 12% of all reported assaults, the name and licence type of a licensed liquor outlet was recorded in the narrative field of the police data set
- The majority of these assaults occurred near hotels/taverns (between 60% and 70%)
- Between 24% and 40% of these assaults occurred near night clubs

Random breath tests

Approximately 102,401 charges were laid for BAC .05 or greater after random breath testing in the nine year period 1990/1991 to 1998/1999 at an average of 11,378 per annum. Of these charges, approximately 18% relate to charges for BAC .05 to .08. This report presents findings only for charges laid for BAC levels of .08 to .15 and Driving under the Influence (DUI). Figures 6a and 6b show the number and rate per 10,000 of the population (respectively) of charges laid for BAC .08 or greater.

Summary findings

- Approximately 6,000 charges for BAC .08 to .15 are laid per annum.
- Approximately 3,300 charges for DUI are laid per annum.
- After a peak in 1994/1995 there was a steady decline in the rate of charges laid for BAC .08 or greater.

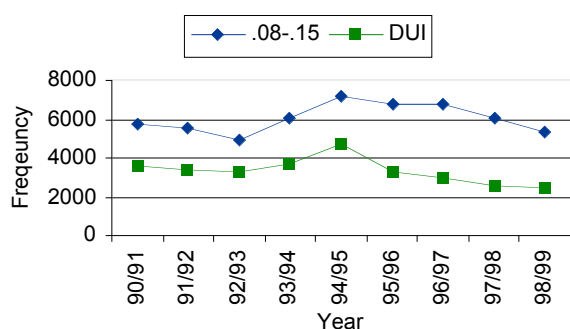


Figure 6a: Number laid for BAC .08 or greater, Western Australia 90/91 to 98/99.

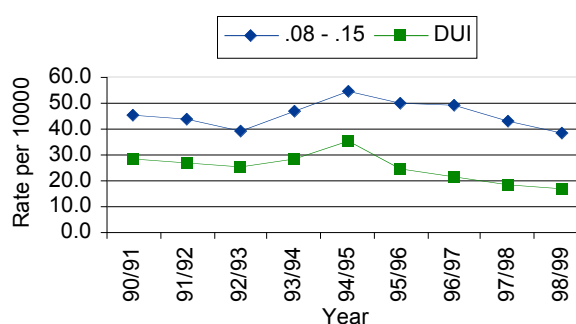


Figure 6b: Rate of charges laid for BAC .08 or greater, WA 1990/91 to 1997/98.

Important markers during the period 1990/1991 to 1998/1999:

- 1995: Introduction of 'booze buses' accompanied by media blitz.
- 1996: The Fremantle Accord was introduced.

Additional findings

- On average 56% per annum of all DUI charges laid occur between 10pm to 6am, 37% occur between 2pm to 10pm and the remaining 7% of charges occur between 6am to 2pm.
- On average 61% per annum of all charges for BAC .08 to .15 occur between 10pm to 6am, 34% occur between 2pm to 10pm and the remaining 5% occur between 6am to 2pm.

Alcohol-related road fatalities and injuries

Information on road fatalities and injuries requiring hospitalisation are presented in this section. Previous studies by Roadwatch indicate that road fatalities and injuries occurring during the night time hours are more likely to be alcohol-related.

Figure 7a shows the number of road fatalities and figure 7b shows the rate per 10,000 of the population by time of day. Figures 7c and 7d show the number of road injuries which required hospitalisation and the rate per 10,000 of the population respectively.

Summary findings

During the nine year period 1991/1992 to 1998/1999 in WA, as a result of road accidents, there was a total of:

- 1,888 fatalities at an average of 210 per annum;
- 24,035 injuries requiring hospitalisations at an average of 2,670 per annum; and
- 4,755 other injuries at an average of 528 per annum.

After a decrease in the rate of road fatalities that occurred during 2.00pm to 10.00pm in 1997/1998, there was a slight upward shift in 1998/1999. The rate of fatalities that occurred during other times has remained relatively stable. There was a slight downward shift in the rate of injuries requiring hospitalisation in 1998/1999.

On average 43% of road fatalities occur between 2.00pm and 10.00pm and 27% occur between 10.00pm and 6.00am. Similarly, for road injuries requiring hospitalisation, 47% occur between 2.00pm and 10.00pm and 19% occur between the 10.00pm and 6.00am.

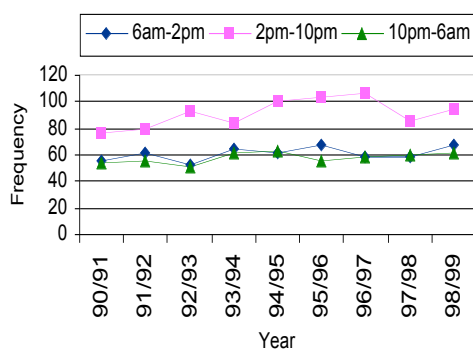


Figure 7a: Number of road fatalities during different time periods, WA, 1990/91 to 1998/99.

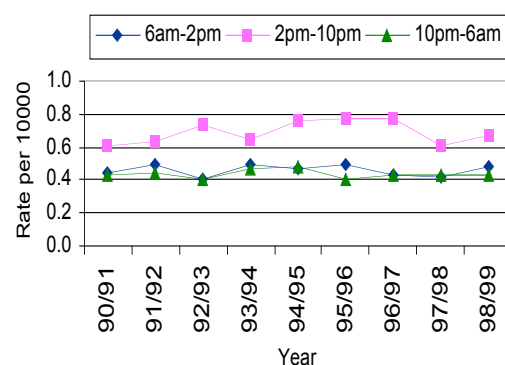


Figure 7b: Rate of road fatalities per 10,000 of the population, WA, 1990/91 to 1998/99

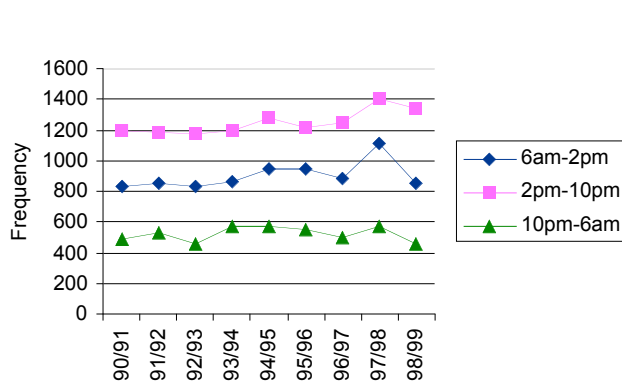


Figure 7c: Number of road injuries requiring hospitalisation during different time periods, WA, 1990/91 to 1998/99

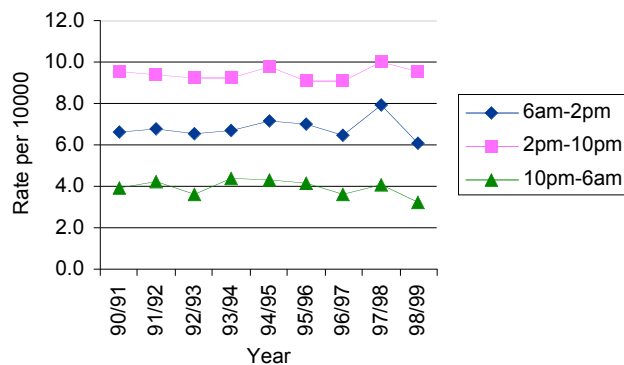


Figure 7d: Rate of road injuries requiring hospitalisation per 10,000 of the population, WA, 1990/91 to 1998/99

With respect to positive BAC ($\geq .05$) recordings taken from drivers involved in road accidents which resulted in fatalities and injuries from 1990/1991 to 1998/1999, figure 8a shows the number of drivers recorded as having a BAC $> .05$, by time of day. Figure 8b shows the rate of injuries per 10,000 of the population, where the driver BAC was recorded as $\geq .05$, by time of day.

Summary findings

3,263 positive BAC ($\geq .05$) recordings were taken from drivers involved in road accidents which resulted in fatalities or injuries requiring hospitalisation at an average of 363 per annum. The highest frequency of BAC readings $> .05$ occurred during the 10pm to 6am time period (55.93%). The next highest frequency of BAC $> .05$ occurred during the 2.00pm to 10.00pm time period (36.29%), followed by the 6.00am to 2.00pm period (7.78%). A similar pattern was observed for the rate of BAC $> .05$ readings per 10,000 of the population (Figure 8b).

Overall, BAC readings $> .05$ for the 10.00pm-6.00am time period increased from 1990/1991, reaching a peak in 1993/1994, then gradually declining thereafter. A similar trend was observed for this time period for the rate data displayed in figure 8b. BAC readings $> .05$ for the 2.00pm to 10.00pm time period showed a slight upward trend across the nine year time period from 1990/1991 to 1998/1999. A similar trend was observed for the rate data for that time period. Frequencies and rates across the nine-year duration for the 6.00am to 2.00pm time period were relatively constant.

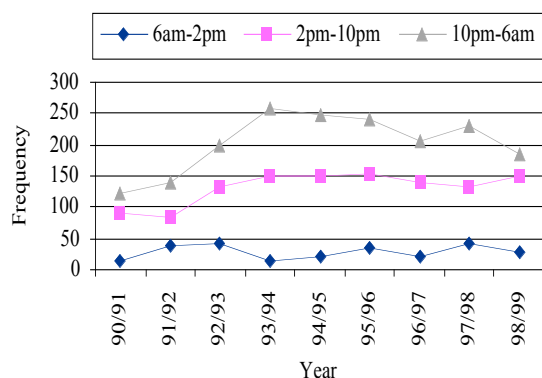


Figure 8a: Number of drivers with BAC $\geq .05$ for each injury by time of day, WA 1990/91 to 1998/99

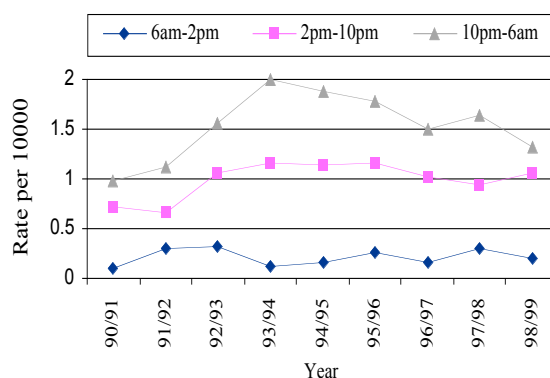


Figure 8b: Rate of injuries where BAC $\geq .05$ per 10,000 of the population, WA, 1990/91 to 1998/99

Summary

Table 1 summarises the data on alcohol related harm and Table 2 summarises the information on active liquor outlets and per capita consumption of all beer, all wine, all spirits and total alcohol consumption.

Table 1: Alcohol related harm in Western Australia, 1990 to 1998.
Frequency and rate per 10,000 of the population

Year	Deaths	Admissions	Assaults (2pm to 6am)	RBT Charges laid for BAC .08- .15	RBT Charges laid for DUI	Road fatalities and injuries (2pm-6am)		
						Fatalities	Injuries requiring hospital- isations	BAC .05 + recorded after road accidents
1990/91		7448 (59)		5749 (45.7)	3604 (28.7)	130 (1.03)	1691 (13.46)	212 (1.69)
1991	294 (2.3)							
1991/92		7420 (59)	7684 (61.1)	5501 (43.8)	3347 (26.6)	136 (1.08)	1711 (13.62)	224 (1.78)
1992	317 (2.5)							
1992/93		7566 (58)	7842 (61.6)	4956 (38.9)	3266 (25.6)	144 (1.13)	1634 (12.83)	332 (2.61)
1993	318 (2.5)							
1993/94		8230 (62)	8602 (66.6)	6040 (46.6)	3721 (28.7)	145 (1.12)	1766 (13.64)	407 (3.14)
1994	334 (2.5)							
1994/95		8717 (65)	9799 (74.1)	7157 (54.3)	4674 (35.5)	163 (1.24)	1850 (14.04)	396 (3.01)
1995	334 (2.5)							
1995/96		9166 (67)	11388 (84.7)	6729 (50.0)	3316 (24.7)	158 (1.17)	1771 (13.17)	394 (2.93)
1996	350 (2.6)							
1996/97		9242 (66)	11609 (84.6)	6751 (49.2)	2978 (21.7)	165 (1.20)	1739 (12.67)	347 (2.53)
1997	339 (2.4)							
1997/98		9287 (65)	11688 (83.3)	6074 (43.3)	2541 (18.1)	145 (1.03)	1969 (14.03)	363 (2.59)
1998	304 (2.1)							
1998/99				5345 (38.1)	2425 (17.3)	156 (1.11)	1790 (12.76)	334 (2.38)

Table 2: Active liquor outlets, rate per 1000 of the population and per capita consumption of litres of absolute alcohol, Western Australia 1990 to 1998

Year	No. active liquor outlets	All spirits	All wine	All beer	All alcohol
1990/91	1634 (1.3)	1.22	2.31	6.15	9.68
1991/92	1776 (1.4)	1.31	2.72	6.47	10.50
1992/93	1868 (1.4)	1.36	3.01	6.12	10.49
1993/94	1933 (1.5)	1.49	2.90	6.04	10.40
1994/95	2045 (1.5)	1.61	2.93	6.12	10.66
1995/96	2047 (1.5)	1.65	2.89	5.91	10.45
1996/97	2135 (1.5)	1.56	3.02	5.79	10.37
1997/98	2189 (1.5)	1.73	3.24	5.72	10.69

Trends in alcohol related harm indices

Tables 1 and 2 indicate that since 1990/1991 there has been a:

- 9% decrease in the death rate;
- 17% decrease in the rate of charges laid for BAC .08 to .15;
- 40% decrease in the rate of charges laid for DUI;
- 7% decrease in the per capita consumption of beer;
- 15% increase in the rate of active liquor outlets;
- 42% increase in the per capita consumption of all spirits;
- 40% increase in the per capita consumption of all wine;
- 10% increase in the per capita consumption of all alcohol;
- 5% increase in the admission rate since 93/94; and
- 36% increase in the rate of assaults

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Alcohol Related Harm: Goldfields Health Region

The Goldfields Health Region comprises the Northern Goldfields and South East Coastal Health Services.

Table 1: Alcohol related harm in the Goldfields Health Region, 1990 to 1998. Frequency and rate per 10,000 of the population.

Year	Deaths	Admissions	Assaults (2pm to 6am)	RBT Charges laid for BAC .08- .15	RBT Charges laid for DUI
1990/91		436 (112)		265 (67.8)	277 (70.8)
1991	12 (3.0)				
1991/92		431 (109)	546 (138)	331 (83.8)	301 (76.2)
1992	13 (3.2)				
1992/93		479 (121)	479 (121)	238 (60.2)	260 (65.7)
1993	19 (4.7)				
1993/94		488 (121)	479 (118)	258 (63.7)	276 (68.2)
1994	7 (1.8)				
1994/95		519 (125)	565 (136)	366 (88.4)	355 (85.7)
1995	15 (3.7)				
1995/96		531 (125)	507 (120)	344 (81.3)	299 (70.6)
1996	15 (3.5)				
1996/97		482 (111)	592 (138)	288 (66.6)	254 (58.7)
1997	18 (4.2)				
1997/98		484 (110)	647 (147)	290 (66.04)	207 (47.1)
1998	14 (3.1)				
1998/99				316	227

Table 2: Active liquor outlets, rate per 1000 of the population and per capita consumption of litres of absolute alcohol, Goldfields Health Region, 1990 to 1998.

Year	No. active liquor outlets	All spirits	All wine	All beer	All alcohol
1990/91	107 (2.6)	2.26	2.04	11.35	15.65
1991/92	114 (2.8)	2.20	2.38	10.92	15.50
1992/93	119 (2.8)	2.37	2.61	10.50	15.49
1993/94	119 (2.8)	2.95	2.69	10.94	16.58
1994/95	123 (2.8)	3.68	2.67	10.80	17.16
1995/96	127 (2.8)	3.57	2.69	10.34	16.59
1996/97	130 (2.8)	3.33	2.80	10.06	16.19
1997/98	129 (2.8)	3.38	3.05	9.48	15.91

Trends

Tables 1 and 2 indicate that since 1990/91 there has been a:

- 3% increase in the death rate (should be interpreted cautiously due to very small numbers)
- 9% decrease in the admission rate since 93/94
- 6% increase in assaults
- 8% increase in the number of active liquor outlets
- 53% increase in the per capita consumption of all spirits
- 53% increase in the per capita consumption all wine
- 17% decrease in the per capita consumption of all beer
- 4% increase in the per capita consumption of all alcohol

Injuries in Kalgoorlie

On behalf of the Kalgoorlie Regional Hospital, the Injury Control Program of the Health Department of Western Australia produced a preliminary report in September 1999, entitled 'Injuries in Kalgoorlie (A Focus on Alcohol)'. Selected statistics from this report are reproduced below to supplement the information provided here, pertaining to the Goldfields health region. These statistics are derived from data collected between 1 July 1998 and 30 June 1999 by emergency department (ED) nursing staff, whenever a patient presented to the department with an injury.

Sample

During the data collection period, 6566 people presented at Kalgoorlie regional hospital with an injury. Data collection forms were completed for 5780 patients, representing an overall capture rate of 88%.

Summary statistics

Was alcohol involved in the injury?

Nine hundred and forty-one injuries (16%) involved alcohol. Seventy-one of these affected males. In only four of the 941 cases had the patient themselves not been drinking.

Was the patient noticeably intoxicated?

Of the 937 patients who had been drinking alcohol, 295 (31%) were noticeably intoxicated.

Average consumption of alcohol

More males than females consumed alcohol within the 6-hour period prior to their injury and males consumed more alcohol, in total, than females. The average alcohol consumption was also higher for males than females, as was the average consumption for aboriginal people when compared to non-aboriginal people.

- **Full strength beer:** 205 people consumed 1640 cans of high-alcohol beer at an average of 8 cans per person.
- **Spirits:** 93 people consumed 878 nips of spirits at an average of 9 nips per person. Males consumed 78% of the spirits drunk.
- **Wine:** 43 people consumed 859 glasses of wine at an average of 20 glasses per person.

Place of last drink

Of the 937 cases where the injured person had been drinking, 201 (21%) had consumed their last drink in a licensed premise. The injured person's home or another person's home were also common places of last drink before attending the hospital (18%).

Alcohol Related Harm: Great Southern Health Region

The Great Southern Health Region comprises the Central, Lower and Upper Great Southern health services.

Table 1: Alcohol related harm in the Great Southern Health Region, 1990 to 1998. Frequency and rate per 10,000 of the population.

Year	Deaths	Admissions	Assaults (2pm to 6am)	RBT Charges laid for BAC .08- .15	RBT Charges laid for DUI
1990/91		374 (73)		190 (36.86)	131
1991	11 (2.0)				
1991/92		404 (78)	286 (55.2)	214 (41.31)	123
1992	15 (3.0)				
1992/93		370 (71)	238 (45.7)	164 (31.48)	117
1993	12 (2.3)				
1993/94		421 (81)	302 (66.3)	164 (31.53)	132
1994	12 (2.4)				
1994/95		438 (84)	345 (66.4)	153 (29.43)	117
1995	13 (2.4)				
1995/96		469 (89)	343 (65.2)	176 (33.45)	117
1996	15 (2.8)				
1996/97		492 (92)	373 (70.1)	168 (31.56)	72
1997	20 (3.7)				
1997/98		450 (83)	386 (71.3)	195 (36.01)	85
1998	13 (2.4)				
1998/99				185	98

Table 2: Active liquor outlets, rate per 1000 of the population and per capita consumption of litres of absolute alcohol, Great Southern Health Region 1990 to 1998.

Year	No. active liquor outlets	All spirits	All wine	All beer	All alcohol
1990/91	139 (2.7)	1.22	1.34	6.19	8.76
1991/92	143 (2.7)	1.25	1.75	6.22	9.23
1992/93	146 (2.8)	1.39	1.90	6.02	9.31
1993/94	147 (2.8)	1.51	1.76	5.96	9.23
1994/95	150 (2.9)	1.74	1.89	6.06	9.69
1995/96	153 (2.9)	1.88	1.95	5.96	9.78
1996/97	158 (2.9)	1.71	2.04	5.85	9.60
1997/98	160 (3.0)	1.38	1.99	4.02	7.40

Trends

Tables 1 and 2 indicate that since 1990/91 there has been a:

- 20% increase in the death rate (should be interpreted cautiously due to very small numbers)
- 2% decrease in the rate of charges laid for BAC .08 - .15 between 1990/91 and 1997/98
- 25% decrease in the frequency of charges laid for DUI
- 2% increase in the admission rate since 93/94
- 29% increase in assaults
- 15% increase in the number of active liquor outlets
- 13% increase in the per capita consumption of all spirits
- 48% increase in the per capita consumption all wine
- 54% decrease in the per capita consumption of all beer
- 18% decrease in the per capita consumption of all alcohol

Alcohol Related Harm: Midwest Health Region

The Midwest Health Region comprises the Geraldton, Midwest and Murchison health services.

Table 1: Alcohol related harm in the Midwest Health Region, 1990 to 1998. Frequency and rate per 10,000 of the population.

Year	Deaths	Admissions	Assaults (2pm to 6am)	RBT Charges laid for BAC .08- .15	RBT Charges laid for DUI
1990/91		308 (88)		170 (48.4)	229 (65.2)
1991	8 (2.3)				
1991/92		337 (95)	391 (110)	140 (39.3)	172 (48.2)
1992	11 (3.1)				
1992/93		323 (90)	424 (118)	181 (50.4)	197 (54.9)
1993	14 (3.9)				
1993/94		400 (111)	468 (130)	188 (52)	256 (70.8)
1994	10 (2.8)				
1994/95		392 (108)	420 (115)	237 (65)	247 (67.7)
1995	10 (2.8)				
1995/96		377 (102)	516 (139)	196 (52.8)	165 (44.4)
1996	12 (3.1)				
1996/97		359 (95)	509 (135)	208 (55.2)	145 (38.5)
1997	5 (1.4)				
1997/98		364 (95)	452 (118)	243 (63.4)	185 (48.3)
1998	8 (2.0)				
1998/99				233	174

Table 2: Active liquor outlets, rate per 1000 of the population and per capita consumption of litres of absolute alcohol, Midwest Health Region, 1990 to 1998.

Year	No. active liquor outlets	All spirits	All wine	All beer	All alcohol
1990/91	102 (2.8)	2.20	2.14	11.34	15.68
1991/92	115 (3.1)	2.16	2.23	10.85	15.23
1992/93	120 (3.2)	2.19	2.33	10.48	15.01
1993/94	124 (3.3)	2.39	2.30	10.31	15.00
1994/95	128 (3.3)	2.74	2.29	10.29	15.32
1995/96	127 (3.2)	2.99	2.34	10.24	15.58
1996/97	123 (3.1)	2.52	2.37	9.16	14.05
1997/98	117 (2.9)	2.41	2.57	8.82	13.80

Trends

Tables 1 and 2 indicate that since 1990/91 there has been a:

- 13% decrease in the death rate (should be interpreted cautiously due to very small numbers)
- 14% decrease in the admission rate since 93/94
- 7% increase in assaults
- 4% increase in the number of active liquor outlets
- 9% increase in the per capita consumption of all spirits
- 20% increase in the per capita consumption all wine
- 29% decrease in the per capita consumption of all beer
- 14% decrease in the per capita consumption of all alcohol

Injuries in Geraldton

On behalf of the Geraldton Regional Hospital, the Injury Control Program of the Health Department of Western Australia produced a preliminary report in October 2000, entitled 'Injuries in Geraldton (A Focus on Alcohol)'. Selected statistics from this report are reproduced below to supplement the information provided here, pertaining to the Midwest health region. These statistics are derived from data collected during a three month period by emergency department (ED) nursing staff, whenever a patient presented to the department with an injury.

Sample

During the three-month data collection period, 4,432 people attended the ED, resulting in 489 injuries being recorded (11% of the total presentations). Of these 63 injuries (12.9%) involved the consumption of alcohol, with the injured person themselves not consuming alcohol in two of those cases.

Summary statistics

Main cause of injury

The highest cause of injury when alcohol was involved was being struck by or colliding with another person (21 cases or 33%).

Where the injury occurred

The most common place of injury when alcohol was involved was the injured person's or another's home (27 cases or 43%). Of the injuries that occurred on licensed premises (22 cases), 86% (19 cases) involved the consumption of alcohol.

Activity at time of injury

The most common activity at time of injury when alcohol was involved was participating in leisure or socialising activities (39 cases or 62%). The proportion of injuries occurring during leisure/social activities is substantially higher when alcohol is involved, as compared to the overall percentage (35%).

Nature of main injury

When alcohol was involved, the most common diagnosis was an open wound, accounting for 40% of injuries (25 cases). The most common body part injured was the head, accounting for 24% of injuries (15 cases).

Intent of injury

Assaults were more prevalent when the injured person and the person causing the injury had been drinking alcohol prior to the injury.

Outcome of attendance

The likelihood that a patient would be hospitalised following an injury increased when alcohol was involved. Seventeen percent of injuries (11 cases) where alcohol was involved resulted in hospitalisation.

Day of injury

Saturday was the highest day of injury both when alcohol was and was not involved; 18 cases (29%) and 88 cases (21%), respectively.

Was alcohol involved in the injury?

Sixty-three injuries (13%) involved alcohol. In only 2 of these cases (3%) the injured person had not consumed any alcohol.

Was the injured person noticeably intoxicated?

Of the 61 people who had been drinking alcohol, 27 (44%) were noticeably intoxicated.

Alcohol Related Harm: North West Health Region

The North West Health Region comprises the East and West Pilbara, Gascoyne and Kimberley Health Services.

Table 1: Alcohol related harm in the Northwest Health Region, 1990 to 1998. Frequency and rate per 10,000 of the population.

Year	Deaths	Admissions	Assaults (2pm to 6am)	RBT Charges laid for BAC .08- .15	RBT Charges laid for DUI
1990/91		931 (165)		483 (85.9)	583 (104)
1991	27 (4.7)				
1991/92		964 (173)	883 (159)	563 (101)	651 (117)
1992	28 (5.0)				
1992/93		987 (182)	921 (170)	548 (101)	689 (127)
1993	28 (5.2)				
1993/94		1150 (213)	943 (174)	547 (101)	684 (126)
1994	30 (5.0)				
1994/95		1172 (217)	1048 (194)	623 (115)	801 (148)
1995	28 (5.1)				
1995/96		1204 (222)	1274 (235)	551 (102)	628 (116)
1996	32 (5.8)				
1996/97		1180 (213)	1328 (239)	573 (103.2)	573 (103.2)
1997	27 (4.8)				
1997/98		1185 (207)	1543 (270)	554 (97)	541 (94.7)
1998	19 (3.3)				
1998/99				537	572

Table 2: Active liquor outlets, rate per 1000 of the population and per capita consumption of litres of absolute alcohol, North West Health Region, 1990 to 1998.

Year	No. active liquor outlets	All spirits	All wine	All beer	All alcohol
1990/91	123 (2.1)	1.80	3.85	12.26	17.92
1991/92	132 (2.2)	2.36	4.50	13.04	19.91
1992/93	143 (2.4)	2.37	4.64	12.59	19.60
1993/94	147 (2.4)	2.61	4.56	12.65	19.82
1994/95	153 (2.5)	2.68	4.06	12.29	19.03
1995/96	150 (2.4)	3.15	3.97	12.18	19.30
1996/97	163 (2.6)	2.90	4.06	12.20	19.16
1997/98	168 (2.7)	3.16	4.17	12.86	20.19

Trends

Tables 1 and 2 indicate that since 1990/91 there has been a:

- 30% decrease in the death rate
- 3% decrease in the admission rate since 93/94
- 70% increase in assaults
- 29% increase in the number of active liquor outlets
- 75% increase in the per capita consumption of all spirits
- 8% increase in the per capita consumption all wine
- 5% increase in the per capita consumption of all beer
- 13% increase in the per capita consumption of all alcohol

Injuries in Carnarvon

On behalf of the Carnarvon Regional Hospital, the Injury Control Program of the Health Department of Western Australia produced a preliminary report in October 2000, entitled 'Injuries in Carnarvon (A Focus on Alcohol)'. Selected statistics from this report are reproduced below to supplement the information provided here, pertaining to the NorthWest health region. These statistics are derived from data collected from 1st June 2000 to September 2000 by emergency department (ED) nursing staff, whenever a patient presented to the department with an injury.

Sample

During the three-month data collection period, 6347 people attended the ED, resulting in 289 injuries being recorded (5% of the total presentations). Of these 63 injuries (22%) involved the consumption of alcohol, with the injured person themselves not consuming alcohol in five of those cases.

Summary statistics

Main cause of injury

The highest cause of injury when alcohol was involved was being struck by or colliding with another person (22 cases or 35%).

Where the injury occurred

The most common place of injury when alcohol was involved was the injured person's or another's home (34 cases or 54%)

Activity at time of injury

The most common activity at time of injury when alcohol was involved was participating in leisure or socialising activities (45 cases or 71%). The proportion of injuries occurring during leisure / social activities is doubled when alcohol is involved, compared to the overall percentage (34%).

Nature of main injury

When alcohol was involved, the most common nature of injury was an open wound, accounting for 40% of injuries (25 cases).

Body part injured

When alcohol was involved, the most common body part injured was the face, representing 16% of injuries (19 cases).

Day of injury

Saturday had the highest number of injuries when alcohol was and was not involved; 21 cases (33%) and 48 cases (22%), respectively.

Was alcohol involved in the injury?

Sixty-three injuries (22%) involved alcohol. In 5 of these cases (8%), another person, other than the injured person, consumed alcohol prior to the injury.

Was the injured person noticeably intoxicated?

Of the 58 injured people who had been drinking alcohol, 27 (47%) were noticeably intoxicated.

Place of most drinks

Of the 58 cases where the injured person had been drinking, 32 (55%) had consumed most of their drinks in their own home or another's home, followed by consumption in a licensed premise (11 cases or 19%)

Alcohol Related Harm: South West Health Region

The South West Health Region comprises the Bunbury, Harvey-Yarloop, Vasse-Leeuwin, Warren Blackwood and Wellington Health Services.

Table 1: Alcohol related harm in the Southwest Health Region, 1990 to 1998. Frequency and rate per 10,000 of the population

Year	Deaths	Admissions	Assaults (2pm to 6am)	RBT Charges laid for BAC .08- .15	RBT Charges laid for DUI
1990/91		510 (68)		381 (49.8)	241 (31.5)
1991	21 (2.7)				
1991/92		509 (65)	311 (40)	292 (37.6)	191 (24.6)
1992	20 (2.5)				
1992/93		527 (67)	346 (44)	285 (36.1)	209 (26.5)
1993	20 (2.5)				
1993/94		586 (73)	303 (38)	363 (45.1)	196 (24.4)
1994	22 (2.8)				
1994/95		641 (78)	322 (39)	505 (61.5)	250 (30.5)
1995	21 (2.6)				
1995/96		668 (79)	435 (51)	465 (55.0)	235 (27.8)
1996	14 (1.6)				
1996/97		641 (74)	431 (49)	346 (39.7)	161 (18.5)
1997	27 (3.1)				
1997/98		640 (71)	511 (56)	373 (41.2)	150 (16.6)
1998	19 (2.1)				
1998/99				383	178

Table 2: Active liquor outlets, rate per 1000 of the population and per capita consumption of litres of absolute alcohol, Southwest Health Region, 1990 to 1998

Year	No. active liquor outlets	All spirits	All wine	All beer	All alcohol
1990/91	142 (1.8)	1.41	1.97	6.25	9.63
1991/92	151 (1.8)	1.52	2.20	6.48	10.21
1992/93	157 (1.9)	1.62	2.34	6.19	10.15
1993/94	164 (1.9)	1.78	2.28	6.10	10.16
1994/95	170 (1.9)	1.93	2.33	6.28	10.54
1995/96	177 (1.9)	1.99	2.34	6.12	10.46
1996/97	182 (1.9)	1.89	2.50	6.19	10.58
1997/98	185 (2.0)	2.16	2.79	6.40	11.35

Trends

Tables 1 and 1 indicate that since 1990/91 there has been a:

- 22% decrease in the death rate (should be interpreted cautiously due to very small numbers)
- 3% decrease in the admission rate since 93/94
- 40% increase in assaults
- 11% increase in the number of active liquor outlets
- 53% increase in the per capita consumption of all spirits
- 42% increase in the per capita consumption all wine
- 2% increase in the per capita consumption of all beer
- 18% increase in the per capita consumption of all alcohol

Alcohol Related Harm: Western (Midlands) Health Region

The Western Health Region comprises the Avon, Central Wheatbelt, Eastern Wheatbelt and Western Health Services.

Table 1: Alcohol related harm in the Western Health Region, 1990 to 1998. Frequency and rate per 10,000 of the population.

Year	Deaths	Admissions	Assaults (2pm to 6am)	RBT Charges laid for BAC .08- .15	RBT Charges laid for DUI
1990/91		283 (73)		219 (56.7)	148 (38.3)
1991	9 (2.2)				
1991/92		267 (75)	190 (49)	153 (42.8)	133 (37.2)
1992	10 (2.8)				
1992/93		303 (78)	228 (64)	184 (47.4)	130 (33.5)
1993	15 (3.8)				
1993/94		358 (92)	190 (49)	193 (49.4)	113 (28.9)
1994	8 (2.1)				
1994/95		351 (90)	261 (67)	201 (51.2)	157 (40)
1995	13 (3.2)				
1995/96		313 (79)	258 (66)	185 (46.7)	109 (27.5)
1996	15 (3.8)				
1996/97		336 (84)	285 (72)	195 (48.7)	96 (23.9)
1997	13 (3.1)				
1997/98		323 (79)	338 (84)	208 (51.2)	72 (17.7)
1998	10 (2.3)				
1998/99				190	73

Table 2: Active liquor outlets, rate per 1000 of the population and per capita consumption of litres of absolute alcohol, Western Health Region, 1990 to 1998.

Year	No. active liquor outlets	All spirits	All wine	All beer	All alcohol
1990/91	134 (3.5)	1.53	1.24	8.52	11.29
1991/92	139 (3.9)	1.72	1.52	8.81	12.05
1992/93	144 (3.8)	1.74	1.48	7.90	11.13
1993/94	147 (3.8)	1.89	1.50	7.79	11.19
1994/95	150 (3.9)	2.04	1.52	7.61	11.17
1995/96	148 (3.8)	2.30	1.56	7.51	11.37
1996/97	148 (3.8)	2.07	1.64	7.27	10.98
1997/98	148 (3.8)	2.10	1.77	7.33	11.21

Trends

Tables 1 and 2 indicate that since 1990/91 there has been a:

- 4% increase in the death rate (should be interpreted cautiously due to very small numbers)
- 14% decrease in the admission rate since 93/94
- 71% increase in assaults
- 9% increase in the number of active liquor outlets
- 37% increase in the per capita consumption of all spirits
- 43% increase in the per capita consumption all wine
- 16% decrease in the per capita consumption of all beer
- Less than 1% increase in the per capita consumption of all alcohol