Federal Office of Road Safety

ALCOHOL AND ROAD FATALITIES IN AUSTRALIA 1997

This monograph provides information on the incidence of alcohol intoxication amongst drivers, motor cycle riders and pedestrians involved in fatal road crashes during 1997.

Fatally injured motorists 1981-97

Over the past 17 years, the incidence of drink driving has been substantially reduced (Table 1). During 1981, 44 per cent of all drivers and motor cycle riders killed in road crashes had a blood alcohol concentration (BAC) of 0.050 gm/100ml or greater. This has been reduced to 28 per cent during 1997.

This reduction in alcohol-related road trauma has come about as a result of strengthened legislation and enforcement in concert with high profile media and public education activities. These efforts have had a significant impact on public attitudes towards drink driving.

However, as Table 1 shows, there has been a less impressive performance in recent years. Whereas 1994 saw the lowest incidence of intoxication amongst fatally injured drivers and motor cycle riders since records commenced in 1981 (28 per cent with a BAC of 0.050 gm/100ml or greater), the level has remained largely unchanged since then.

This is also apparent in the actual counts of fatally injured drivers and motor cycle riders having a BAC of 0.050 gm/100ml or greater. Whereas a significant reduction occurred during the early 1990s, no improvement has occurred since then (Figure 1.)

Table 1 Percentage of fatally injured drivers and motor cycle riders with a BAC of 0.050 gm/100ml or greater, by State/Territory, 1981 to 1997

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
1981	41	38	50	44	48	43	71	23	44
1982	40	37	48	39	51	29	57	41	42
1983	36	37	47	32	55	19	70	57	40
1984	33	33	44	51	40	51	55	14	37
1985	33	38	47	44	45	37	64	12	39
1986	35	38	45	48	48	28	53	13	40
1987	32	38	39	40	47	39	45	17	37
1988	31	38	38	42	32	31	33	16	35
1989	33	32	34	37	37	44	57	25	34
1990	35	30	31	43	33	24	69	..	34
1991	33	29	31	35	34	21	65	..	32
1992	26	21	33	36	42	21	61	36	29
1993	28	28	28	51	36	32	77	67	32
1994	23	26	31	31	33	38	50	29	28
1995	29	22	33	27	35	44	56	50	29
1996	24	24	36	31	34	28	78	33	29
1997	27	23	27	32	31	25	84	20	28

Note: (a) Percentages relate to persons tested for blood alcohol concentration
(b) Figures for Australia are based on the total numbers, rather than an average of the other States and Territories
(c) .. denotes that figures are not available

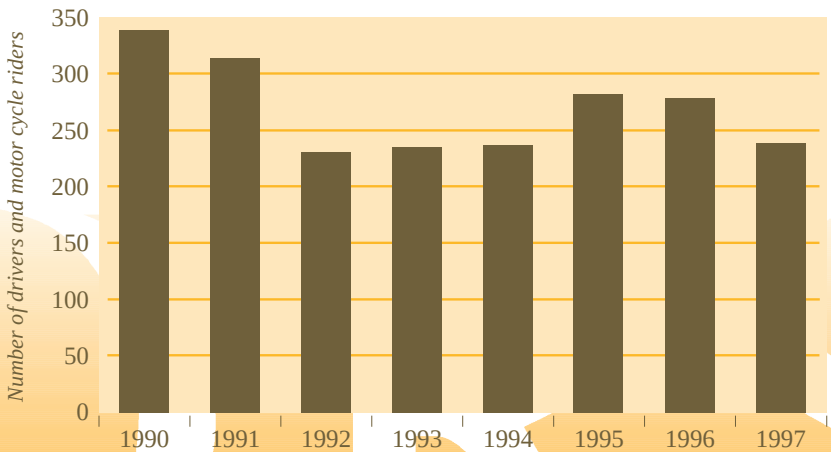
Fatally injured motorists, 1997

Table 2 shows the prevalence of quite extreme BACs amongst fatally injured drivers and motor cycle riders who were intoxicated at the time of the crash. During 1997, 162 (19%) fatally injured drivers and motor cycle riders who were tested had BACs of 0.150 gm/100ml or greater. In contrast, only 77 (9%) had BACs between 0.050 and 0.149 gm/100ml.

Involved motorists, 1997

Table 3 shows the BAC profile of all drivers and motor cycle riders involved in fatal road crashes in 1997, both those killed and those who survived. Some 22

Figure 1 Number of fatally injured drivers and motor cycle riders with a BAC of 0.050 gm/100ml or greater, 1990 to 1997



per cent of involved drivers and motor cycle riders who were tested had a BAC of 0.050 gm/100ml or greater.

Fatally injured pedestrians, 1997

Table 4 shows that during 1997 there were 108 fatally injured adult and youth pedestrians who had a BAC of 0.050 gm/100ml or greater. This represents 42 per cent of all those fatally injured adult/youth pedestrians who were tested.

Reliability of results

Throughout Australia, the autopsy process for people fatally injured in road crashes routinely includes the sampling of blood for laboratory analysis of alcohol content. Table 5 shows that BACs were obtained for 90% of drivers and motor cycle riders fatally injured in 1997. Omissions amongst this group generally arise as a result of technical and administrative hitches unassociated with the likelihood of alcohol intoxication in the fatally injured motorist. For this reason, fairly high reliability can be ascribed to rates of intoxication for deceased motorists and pedestrians based solely on those cases for which BAC readings were obtained, as given in Table 1.

It is more problematic, however, to accurately specify the incidence of intoxication present amongst all drivers and motor cycle riders involved in fatal road crashes, both those killed and those who survived. Table 5 shows that in some States and Territories the testing for alcohol intoxication amongst surviving motorists, whether via blood test or breath test, is far less common than that which occurs through the autopsy process. Only 75% of drivers and riders involved in fatal crashes Australia-wide during 1997 were tested.

In those jurisdictions with low levels of testing the obviously intoxicated drivers and riders tend to be tested more often than those who are not obviously intoxicated. As a result, calculations based solely on those cases for which BAC readings were obtained will tend to overstate the incidence of drink driving amongst all involved drivers and riders.

This means that the road safety agencies and police in some Australian jurisdictions have a greatly reduced ability to monitor the effectiveness of their drink driving countermeasures.

See also monographs 10, 14, 15 and 22.

Table 2 Number of fatally injured drivers and motor cycle riders by BAC, State and Territory, 1997

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
0.000	195	133	112	47	64	9	3	4	567
.001-.049	13	9	13	5	3	0	0	0	43
.050-.149	20	9	22	8	9	2	7	0	77
.150 or above	55	34	25	16	21	1	9	1	162
Untested or unknown (a)	23	11	27	4	0	7	13	7	92
Total	**306**	**196**	**199**	**80**	**97**	**19**	**32**	**12**	**941**

Table 3 Number of drivers and motor cycle riders involved in fatal road crashes by BAC, State and Territory, 1997

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
0.000	324	153	136	79	183	27	5	5	912
.001-.049	18	65	33	5	13	0	0	0	134
.050-.149	27	18	26	14	19	3	8	0	115
.150 or above	66	38	28	18	23	2	9	1	185
Untested or unknown (a)	67	239	73	9	6	11	23	9	437
Total	**502**	**513**	**296**	**125**	**244**	**43**	**45**	**15**	**1,783**

Table 4 Number of pedestrians aged 16 or older fatally injured in a road crash by BAC, State and Territory, 1997

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
0-.049	54	43	20	13	19	0	1	0	150
.050-.149	9	6	5	1	4	0	1	0	26
.150 or above	27	12	15	6	10	0	12	0	82
Untested or unknown (a)	17	10	7	0	0	0	1	2	37
Total	**107**	**71**	**47**	**20**	**33**	**0**	**15**	**2**	**295**

Table 5 Percentage of drivers and motor cycle riders involved in fatal road crashes who were tested for alcohol by State and Territory, 1997

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Fatally injured drivers and motorcycle riders									
Tested	92%	94%	86%	95%	100%	63%	59%	42%	90%
Untested or unknown	8%	6%	14%	5%	0%	37%	41%	58%	10%
All involved drivers and motorcycle riders									
Tested	87%	53%	75%	93%	98%	74%	49%	40%	75%
Untested or unknown	13%	47%	25%	7%	2%	26%	51%	60%	25%

Note: .. denotes that figures were not available
(a) Excluded when calculating the proportion of cases with illegal BAC.