

BLOOD ALCOHOL LEVELS IN ROAD ACCIDENT FATALITIES FOR 2007 IN GREAT BRITAIN

Blood alcohol levels for road users aged 16 or more who died within 12 hours of being injured in a road accident have been recorded by Coroners in England and Wales since 1967, and by Procurators Fiscal in Scotland since 1978. The Department for Transport has commissioned TRL to produce this leaflet to give the latest available data on the distribution of blood alcohol levels in these fatalities and 2007 is the latest year for which complete data are currently available. About 80% of all fatally injured road accident casualties aged 16 and over die within 12 hours of the accident (LF 2080); the blood alcohol level is known for about 77% of them. The legal limit for drivers and riders is 80mg/100ml. Figures are also given in relation to 200mg/100ml - the latter being one of the selection criteria for High Risk (drink-driving) Offenders.

Table 1: Distribution of blood alcohol concentration (BAC) by road user groups

	Total killed aged 16 and over (STATS19)	Number of those killed aged 16 and over with known BAC	Percentage of those with a known BAC exceeding (mg/100ml)					
			9	50	80	100	150	200
Motor vehicle drivers (excluding 2-wheelers)	1044	753	31%	24%	22%	20%	15%	9%
Motorcycle riders	561	421	22%	13%	11%	10%	7%	2%
Vehicle passengers	503	201	36%	28%	26%	23%	14%	9%
Pedestrians	585	285	45%	42%	41%	39%	36%	27%
Pedal cyclists	122	63	35%	17%	17%	17%	11%	10%
All road users	2815	1723	32%	24%	23%	21%	16%	10%

Note: About 80% of all fatal road accident casualties aged 16 and over died within 12 hours of the accident (LF 2080).

Of the 1723 fatalities with a recorded BAC level, 23% had a blood alcohol concentration above 80mg/100ml, with 10% above 200 mg/100ml. Of the 1174 motor vehicle drivers and motorcycle riders killed with a known BAC, 18% were above the legal limit and 6% were above 200mg/100ml BAC. For the 285 pedestrians killed with a known BAC, these proportions were 41% and 27% respectively.

Table 2: Percentage of road users with BAC exceeding 80 and 200mg/100ml by time of accident

	'Drink' hours 10pm-4am			'Non-drink' hours 4am-10pm			Peak period Friday and Saturday 10pm-4am		
	Total	P ₈₀	P ₂₀₀	Total	P ₈₀	P ₂₀₀	Total	P ₈₀	P ₂₀₀
	Motor vehicle drivers (excluding 2-wheelers)	182	48%	17%	571	14%	6%	79	58%
Motorcycle riders	44	45%	14%	377	7%	1%	15	60%	13%
Pedestrians	71	92%	59%	214	24%	16%	48	96%	63%
All road users	364	57%	25%	1359	14%	6%	177	68%	29%

Note: Total is the number with known BAC; P₈₀ and P₂₀₀ are the percentages with BAC exceeding 80 and 200 mg/100ml respectively

Combining data from Table 2 for motor vehicle drivers and riders involved in accidents during drink hours, 47% were above the legal limit, and 16% were above 200mg/100ml BAC. During the peak

period, the corresponding proportions were 59% and 18% respectively. For pedestrians killed during drink hours, 92% were above the legal limit, and 59% were above 200mg/100ml BAC. During the peak period, the corresponding proportions were 96% and 63% respectively.

Table 3: Percentage and number with BAC in excess of 80 and 200mg/100ml by age group

Age groups	Motor vehicle drivers (excluding 2-wheelers)			Motorcycle riders			Pedestrians			All road users		
	Total	P ₈₀	P ₂₀₀	Total	P ₈₀	P ₂₀₀	Total	P ₈₀	P ₂₀₀	Total	P ₈₀	P ₂₀₀
16-19	99	18%	3%	33	18%	3%	22	55%	41%	216	22%	7%
20-24	137	34%	9%	55	18%	5%	33	79%	55%	289	35%	14%
25-29	80	28%	14%	58	16%	2%	17	65%	47%	177	29%	14%
30-39	138	31%	13%	106	7%	0%	36	56%	33%	312	26%	11%
40-49	107	21%	12%	109	9%	4%	35	49%	34%	281	20%	12%
50-59	79	15%	6%	34	12%	3%	35	51%	29%	172	21%	9%
60+	113	5%	3%	26	0%	0%	107	11%	7%	276	7%	4%
All	753	22%	9%	421	11%	2%	285	41%	27%	1723	23%	10%

Note: Total is the number with known BAC; P₈₀ and P₂₀₀ are the percentages with BAC exceeding 80 and 200 mg/100ml respectively

The numbers of fatalities upon which the results are based are small, so conclusions must be tentative. There were 585 pedestrian fatalities aged 16 and over in 2007. LF 2080 (TRL, 2000) reports that 80% of road accident fatalities were found to die within 12 hours of the accident which gives 468 pedestrian fatalities who would have been eligible for testing of their blood alcohol level. The data show that the BAC is known for 61% (285/468) of the eligible pedestrian fatalities which is lower than the corresponding figure for drivers, 90% (753/835). This may lead to a bias in the data for pedestrians.

Table 3 shows that of 178 pedestrians under 60 years of age, 58% had a BAC over the legal limit for drivers and riders, and of 107 pedestrians aged 60 and over 11% had a BAC over the legal limit for drivers and riders. However, for drivers the highest percentage over the legal limit occurs in those aged between 20 and 24 (34%), but for motorcycle riders it is the 16-24 age group (18%).

The results presented here are similar to those found in earlier leaflets (TRL, 2008) that have been produced annually from this information.

References:

LF 2104 Blood alcohol levels in road accident fatalities for 2006 in Great Britain. TRL leaflet, October 2008.

LF 2080 Time interval between road accident and death, 1997. TRL leaflet, January 2000.

Further information on drinking and driving can be found in the following publications:

Reported Road Casualties Great Britain: 2008 Annual Report London: Department for Transport.

Keigan M and R J Tunbridge (2003). *The incidence of alcohol in fatally injured adult pedestrians.* TRL Report TRL579. Crowthorne: TRL Limited.

Maycock G (1997). *Drinking and driving in Great Britain - a review.* TRL Report TRL232. Crowthorne: TRL Limited.