# 6

# **Road Trauma**

## Introduction

- 6.1 The white crosses that can be seen on the side of Australian roads are poignant reminders of the fact that many people die and are injured every year on highways and city streets. Just how many is shocking. From July 2000 to June 2001 there were 1775 road fatalities. On a calender year basis, the lowest number of road fatalities from 1986 to 2000 was 1755 in 1998.<sup>1</sup> In 1996 the estimated total financial cost of road crashes was \$15 billion.<sup>2</sup> Of this cost, it is estimated that alcohol use was responsible for approximately \$1.3 billion and other drugs represented between \$0.21 and \$0.46 billion.<sup>3</sup>
- 6.2 Hospitals and laboratories gather information on the presence of alcohol and other drugs following road fatalities and serious accidents, but this is not collected in standard form throughout Australia. Only Victoria, Western Australia and New South Wales routinely test all fatalities for the presence of mood-altering substances<sup>4</sup>. At the roadside, drivers have been effectively tested for alcohol for many years. In contrast to alcohol:

there seems little prospect of developing methods for fast, cheap, non-intrusive and accurate measurement of all relevant drugs, that

<sup>1</sup> Australian Transport Safety Bureau June 2001, *Road Fatalities Australia*, pp. 3, 10.

<sup>2</sup> Submissions, Vol 10, p. 2683.

<sup>3</sup> Submissions, Vol 10, pp. 2683-84.

<sup>4</sup> Austroads, *Drugs and Driving in Australia: First Report of the Austroads Working Group*, Sydney, 2000, pp. 4, 13, 15, 33-34.

could stand alone as evidence in a court of driver impairment caused by drugs.5

- 6.3 In Australia alcohol remains one of the biggest single causes of road deaths and injuries; in 1997 28% of driver and motorcycle rider fatalities involved a blood alcohol concentration above 0.05.6 Alcohol is so evident in these statistics not only because alcohol is widely used, but also because it appears to increase users' crash risk more than any other drug that commonly turns up in fatality or injury statistics.<sup>7</sup>
- 6.4 The Commonwealth Department of Transport and Regional Services reported that a recent study by Austroads<sup>8</sup> estimated that if no drivers used alcohol, the number of fatal crashes would be reduced by about 25% and the number of serious injury crashes by 9%.<sup>9</sup> This equates to about 250 fewer driver and rider fatalities in 2000-2001.<sup>10</sup> Alcohol use by pedestrians is also a significant problem, with around 40% of adult pedestrians killed on roads having an elevated blood alcohol concentration. For young adults and older teenagers the figure is even higher.<sup>11</sup>
- 6.5 While alcohol has the greatest impact on road safety, all psychoactive drugs are of concern because these act on the brain or central nervous system and affect perception, behaviour, judgment and reaction time. Psychoactive drugs, including depressants such as alcohol, antidepressants, stimulants, hallucinogens and some pain-killers, are found in about 24% of driver fatalities.<sup>12</sup> This may seem a high proportion, however one witness told the Committee three caveats need to be borne in mind:

The first is that a lot of the crash-involved drivers in whom drugs are detected have also been using alcohol - roughly two in five of them, in fact. The second is that the drug positive cases can include people with quite low concentrations of drugs in their system, including therapeutic drugs. The third, particularly in relation to cannabis, is that many studies have classified people as cannabis positive when what have been found in them are

- 9 Submissions, Vol 10, p. 2683.
- Australian Transport Safety Bureau June 2001, Road Fatalities Australia, p. 3.
- Evidence, p. 97; 40% of the pedestrians killed in 2000-2001 equals 110 people: Australian 11 Transport Safety Bureau June 2001, Road Fatalities Australia, p. 3.
- 10

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12 Evidence, p. 97.

<sup>5</sup> Drugs and Driving in Australia, p. 25.

Submissions, Vol 10, p. 2678. 6

<sup>7</sup> Evidence, p. 97.

<sup>8</sup> Austroads is an association of Australian and New Zealand road transport and traffic authorities: submissions, Vol 10, p. 2678.

breakdown products of cannabis that can remain in the body for several days after use. So you are identifying they are cannabis users but not necessarily people who were behaviourally affected by cannabis at the time of the crash.<sup>13</sup>

### **Drink driving**

#### Random breath testing

- 6.6 Random breath testing (RBT) involves the police stopping drivers and analysing their breath to determine if the driver has a blood alcohol concentration higher than the legal limit. If so, a graded system of penalties applies related to the severity of the offence.
- 6.7 RBT had been introduced into every state and territory by 1989.<sup>14</sup> It was a radical step at the time, and as one witness said:

The police were given powers to stop people who were committing no offence, doing nothing to attract attention to themselves, but they could be stopped, checked, and suffer very severe penalties if they were over the limit. That is so radical that a lot of other countries still do not think they can do it.<sup>15</sup>

#### **Deterrent factor**

- 6.8 The Committee was advised that the application of random breath testing and its associated components has had considerable success in reducing the incidence of drink driving in Australia.<sup>16</sup> Evidence that supports this view can be found in the numbers of driver and rider fatalities testing above 0.05 over a number of years. On a national scale, in 1981 the percentage of driver and rider fatalities testing over 0.05 was between 40% and 44%. That figure now is about 28%.<sup>17</sup>
- 6.9 Different jurisdictions provided information to the Committee that supported this national trend. For example, the ACT Government noted that for the year ending June 1996, 11.7 drivers per 1000 tests were charged

- 16 Submissions, Vol 10, p. 2678.
- 17 Evidence, p. 101.

<sup>13</sup> Evidence, pp. 97-98.

<sup>14</sup> Submissions, Vol 9, p. 2112.

<sup>15</sup> Evidence, pp. 100-101. The Commonwealth Department of Transport and Regional Services advises that in both the United States and Canada, law enforcement officers must have a reason to check a driver for alcohol. In the United Kingdom, neither random breath tests nor sobriety checkpoints are conducted.

with exceeding the limit, while for the year ending June 1998 this figure had dropped to 7.1 drivers per 1000 tests.<sup>18</sup> In Queensland, 26.3 drivers per 1000 tests were charged with a drink-driving offence in 1996-97, while the number currently stands at 8.7 drivers per 1000 tests.<sup>19</sup>

- 6.10 The effectiveness of RBT as a deterrent depends on two factors. These are the penalty that is attached to the offence and the probability of being tested.<sup>20</sup> In regard to penalties, all States have 0.05 as a basic limit, with special limits for professional drivers, and in most States for young people in the first three years of driving. All jurisdictions have adopted a graded system of penalties relating to the severity of the offence, with some variations between the jurisdictions. While some States apply point demerits to low range alcohol offences, the general perception in the community is that penalties are tough.<sup>21</sup>
- 6.11 A high probability of being tested obviously plays a large part in deterring people from driving over the legal limit. To enhance the perception that drivers will be tested, most jurisdictions now seek to conduct one random breath test per two licensed drivers per year.<sup>22</sup> The Queensland Police Service informed the Committee that in 1998 the Service targeted 70% of licensed drivers; in the year 2000 the target was increased to 100%.<sup>23</sup> The Commonwealth Department of Transport and Regional Services commented, however, that there is still scope for further enhancement of RBT efficiency and effectiveness, including increased intensity in some jurisdictions.<sup>24</sup>

#### Success rates

6.12 While it would appear that RBT has been successful in reducing the numbers of people driving above the legal blood alcohol limit, a number of issues were raised in evidence. One is that the success of the RBT strategy should be seen as part of a road safety package incorporating legislation, enforcement, public education and media advertising activity.<sup>25</sup> Another is that RBT does not test for drugs other than alcohol, an issue which will be explored further below.

- 19 Evidence, p. 722.
- 20 Submissions, Vol 9, p. 2112.
- 21 Evidence, p. 100.
- 22 Evidence, p. 101; Submissions, Vol 9, p. 2251.
- 23 Evidence, p. 722.
- 24 Submissions, Vol 10, p. 2678.
- 25 Submissions, Vol 10, p. 2678; Vol 9, p. 2111.

<sup>18</sup> Submissions, Vol 9, p. 2250.

- 6.13 A third is that there is evidence at the national level to suggest there has been an increase in the numbers of people driving while over the legal limit. The Tasmanian Government's submission referred to National Drug Strategy Household Survey findings as well as drink driving figures from the Bureau of Crime Statistics indicating a rise in recent years which has been described as 'disturbing' and warranting a review of RBT strategies.<sup>26</sup>
- 6.14 Finally, there is some evidence that RBT has been less effective in rural than in urban areas.<sup>27</sup> Research into this issue was described by a witness as follows:

First of all, it is essentially as issue with the country drivers rather than city visitors. The issues include the fact that country people can have fewer alternatives than city people, that is, there is not necessarily a tram or a bus or a taxi to get you to or from the pub if you want to take some option rather than using your car. A second thing that comes out is that country people have very good networks, and news about exactly when and where the random breath testing is going to be can perhaps travel better than it does in the city. There was some concern expressed by research done in Victoria that was suggesting that in some cases very visible enforcement could actually have a perverse effect because everybody knew when and where the booze bus would be and so they got home by taking the back roads. However, back roads are more dangerous roads than main highways.<sup>28</sup>

#### Consequences

- 6.15 Jurisdictions have adopted a graded system of penalties related to factors such as the extent to which a person's blood alcohol level is above the legal limit, and whether the person has previously committed a similar offence.<sup>29</sup> In addition to the penalty, there can be other penalties for the driver, relating to obtaining motor vehicle insurance or needing to pay increased premiums.<sup>30</sup>
- 6.16 Some jurisdictions, such as the Northern Territory, also make attendance at an alcohol education or counselling session a prerequisite for the driver being reissued a licence.<sup>31</sup> The alcohol education or counselling session

30 Submissions, Vol 9, p. 2112.

<sup>26</sup> Submissions, Vol 9, p. 2112.

<sup>27</sup> Submissions, Vol 10, p. 2678.

<sup>28</sup> Evidence, pp. 101-102.

<sup>29</sup> Submissions, Vol 10, p. 2678.

<sup>31</sup> Evidence, p. 689.

may lead into further treatment or rehabilitation, or raise general health issues associated with alcohol. The Salvation Army recommended to the Committee that referral to treatment and rehabilitation programs should be adopted as an essential part of the penalties for drivers.<sup>32</sup>

## **Drug driving**

- 6.17 As noted above, traces of drugs other than alcohol are found in about 24% of driver fatalities. Austroads estimate that if the use of all drugs other than alcohol could be eliminated, the number of fatal crashes could be reduced by between 4% and 11%, and the number of serious injury crashes by about 1%.<sup>33</sup> Using the figures for 2000-2001, the reduction in driver and rider fatalities would range between 42 and 115 people.<sup>34</sup>
- 6.18 Driving under the influence of drugs other than alcohol is illegal in every State and Territory in Australia and the penalties are quite severe, although the exact form of legislation and the mechanisms for enforcement vary between jurisdictions.<sup>35</sup> Complicating factors associated with enforcing anti-drug-driving legislation are determining precisely what quantity of drug is dangerous and devising an easy method of testing for drugs other than alcohol.

#### **Drugs and culpability**

- 6.19 There is some difficulty in establishing whether the presence of the drug caused an accident and what quantity of drug is dangerous. For example, the Victorian and West Australian Governments provided to the Committee figures on drugs found in driver fatalities, but both stressed that this did not mean these drugs caused the accident.<sup>36</sup>
- 6.20 One method of determining what drugs contributed to a crash is called culpability analysis. Information on what drugs are present in which drivers is combined with data on responsibility for the crash. The basic logic there is that anything that has a causal link for crash involvement ought to be found more in the at-fault drivers than in the not-at-fault drivers.<sup>37</sup>

<sup>32</sup> Evidence, p. 452.

<sup>33</sup> Submissions, Vol 10, p. 2683.

<sup>34</sup> Australian Transport Safety Bureau June 2001, *Road Fatalities Australia*, pp. 3, 10.

<sup>35</sup> Evidence, p. 99.

<sup>36</sup> Submissions, Vol 11, p. 2709; Vol 6, p. 1433.

<sup>37</sup> Evidence, p. 98.

- 6.21 This sort of analysis reveals that alcohol, and alcohol in combination with other drugs, stands out as being linked to culpable driving. The use of both licit and illicit drugs without alcohol appears to be a less important causal factor in serious road crashes than alcohol, speeding or fatigue.<sup>38</sup> Drivers who are cannabis users, and test negative for alcohol, have not been found to have a significantly elevated crash risk.<sup>39</sup> Benzodiazepines emerge as significant for serious injury cases, with a study by South Australia finding these drugs contributed to road crashes.<sup>40</sup>
- 6.22 Following an inquiry into managing fatigue in transport last year, a House of Representatives Committee made two recommendations to the Government relating to drugs in transport.<sup>41</sup> The first recommended the development and implementation of a drug-free policy for the road transport industry, including mandatory drug testing in the workplace. The second recommended the development of a program aimed at discouraging employees from taking drugs and encouraging employers to establish work practices which respect basic fatigue management principles. These recommendations seek to address research findings suggesting around 30 per cent of truck drivers use drugs and one study that found 40 per cent of fatally-injured drivers of heavy trucks had drugs in their system.<sup>42</sup>
- 6.23 The Austroads report *Drugs and Driving in Australia* cited research conducted in 1994 and 1995 which found that 16 per cent of truck drivers tested positive for licit stimulants and 5 per cent for illicit stimulants. This compared to 2 per cent of car drivers testing positive for licit stimulants and 1 per cent for illicit stimulants.<sup>43</sup> Austroads observes that research on the impact of stimulant use on driving is inconclusive, but notes that 'rebound fatigue' experienced when stimulants wear off causing drivers to fall asleep while driving is a matter of concern.<sup>44</sup>

#### Testing for drugs other than alcohol

6.24 The Committee received a submission from the Centre for Accident Research and Road Safety (Queensland) which reported on one study

44 *Drugs and Driving in Australia*, p. 11.

<sup>38</sup> Submissions, Vol 10, p. 2682.

<sup>39</sup> Submissions, Vol 10, p. 2682.

<sup>40</sup> Evidence, p. 98; Submissions, Vol 10, p. 2406.

<sup>41</sup> House of Representatives Standing Committee on Communications, Transport and the Arts, 2000. Beyond the Midnight Oil: Managing Fatigue in Transport, The Parliament of the Commonwealth of Australia, p. 122.

<sup>42</sup> Beyond the Midnight Oil, pp. 118-119. Stimulants made up 21 per cent and alcohol 19 per cent.

<sup>43</sup> Austroads, *Drugs and Driving in Australia: First Report of the Austroads Working Group*, Sydney, 2000, pp. 6-7. Examples of a licit stimulant is Sudafed and an illicit stimulant is amphetamine.

where participants showed little concern for driving under the influence of an illicit substance.<sup>45</sup> While participants in the study gave a number of explanations for this lack of concern, participants also thought that it was unlikely or highly unlikely that they would be caught driving under the influence of an illegal drug.<sup>46</sup> In contrast to the community's general view about RBT, study participants had a perception that the police could not or would not test for illicit substances.

6.25 The inability to test quickly and easily for drugs other than alcohol means that more elaborate processes are required. A Deputy Commissioner of Tasmania Police informed the Committee:

In relation to the issue of drug use, and its effect on the management of road safety issues, where a police officer, for argument's sake, becomes concerned that the driver of a vehicle is affected by a drug other than alcohol, then the officer has the opportunity to undertake certain tests and then to require urine samples or blood samples.<sup>47</sup>

6.26 In Queensland, a representative of the Queensland Police Service told the Committee:

A further problem...is the issue of drugs – other than alcohol – and driving. The Queensland Police Service is exploring strategies to address this issue. Technological advances and practical policing techniques, which rely upon a person's indicia<sup>48</sup>, are currently being evaluated...all members of the Queensland Police Service receive training in the use of roadside breathtesting and field impairment testing to detect drug drivers.<sup>49</sup>

- 6.27 The *Drugs and Driving in Australia* report notes the distinction between roadside screening for drug-related impairment and roadside screening for drug presence<sup>50</sup>. Simple devices can test for the presence of a range of drugs, but only well-equipped hospitals and specialist laboratories can confirm the amount of a drug from a blood sample.<sup>51</sup> Austroads recommends a two-fold national approach to addressing roadside screening for drug driving.<sup>52</sup> First, the offence should be driving while
- 45 Submissions, Vol 12, p. 3365.
- 46 Submissions, Vol 12, pp. 3365, 3371.
- 47 Evidence, p. 986.
- 48 Examples of indicia that NSW police use are set out on page 41 of *Drugs and Driving in Australia*. These include the state of a drivers eyes, breathing, speech, balance and movement.
- 49 Evidence, p. 722.
- 50 Austroads, *Drugs and Driving in Australia: First Report of the Austroads Working Group*, Sydney, 2000.
- 51 Drugs and Driving in Australia, pp. 25-26.
- 52 Drugs and Driving in Australia, pp. 25.

impaired, thus focussing on the state of the driver and not on a specific substance or concentration. Second, the approach of New South Wales should be adopted. This approach combines evidence from police assessment with expert testimony regarding the impairment likely to have been caused by drugs detected by blood analysis.

6.28 While the Committee commends the efforts of police to address some of the practical issues associated with testing for drug driving, it notes that some witnesses expressed the view that 'drug driving' did not warrant the attention it seemed to be attracting. Certainly, some witnesses were concerned that it might deflect valuable resources away from RBT.<sup>53</sup> Austroads believes:

While the apparent extent of the problem as shown by mass statistical data does not warrant diversion of major resources, there remains a need to actively discourage the likely impairment that can occur due to road users using drugs, both legally and illegally. There is sufficient evidence from individual cases of severe and dangerous impairment to justify action, with a resource commitment commensurate with the size of the problem in Australia.<sup>54</sup>

## Conclusion

- 6.29 Information provided to the Committee indicates that the incidence of road trauma associated with substance use has declined over the last decade. The introduction of RBT is a key factor in bringing about this trend, although it is possible that more needs to be done in regional areas to augment the effectiveness of RBT. The success of the RBT strategy depends upon the perception of being caught and the penalty applied once caught. Information referred to in the submission prepared by the Tasmanian Government suggests that RBT could be losing some of its value as a deterrent, though, and if this becomes established as a trend it certainly would warrant having another look at current RBT strategies.
- 6.30 The Committee treats as serious the issues surrounding drug driving but does not consider it has taken enough evidence on the matter to present an informed view about its relative importance in this interim report. The Committee looks forward to making a more complete investigation of the subject when it continues its Inquiry in the next Parliament.

<sup>53</sup> For example, Evidence, p. 143.

<sup>54</sup> Austroads, *Drugs and Driving in Australia: First Report of the Austroads Working Group*, Sydney, 2000, pp. 28, 36.