



# FIRST AID AND HARM MINIMISATION FOR VICTIMS OF ROAD TRAUMA: A POPULATION STUDY

## FINAL REPORT JUNE 2007



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### KEYWORDS

First aid, road traffic accident (RTA), bystanders

### BACKGROUND

This project builds on precursor studies conducted in Western Australia (Oxer 1999) and Sweden (Larsson et al. 2002). In Western Australia, researchers considered the use of first aid by bystanders in traffic accident situations and concluded that approximately 23% of road trauma patients attended by the St John Ambulance Service had received some form of first aid prior to arrival of the ambulance (Oxer 1999). In Sweden, road users were surveyed to determine their experience in using first aid at the scene of road traffic accidents (RTAs).

### OBJECTIVES

It is important to consider the potential role and impact of trained first aiders as bystanders at traffic crashes in an Australian context. The aim of this project was to acquire knowledge about:

- the prevalence of first aid training among drivers in the ACT;
- the incidence of being a bystander and of providing first aid at traffic crashes;
- the range of first aid skill being utilised in this situation;
- the motivation to intervene as a bystander; and
- the perceived impact of first aid training on the risks people take in road traffic.

## **METHOD**

An emailed information sheet was sent to ACT Government employees inviting participation. The potential population of respondents was 12,500. A total of 773 persons responded to the email survey, providing a response rate at 6.2%. Descriptive statistical analysis of quantitative data was initially undertaken using the **Statistical Package for the Social Sciences**, (SPSS Version 14.0) and thematic analysis of qualitative data was completed. Further detailed comparative statistical analysis was completed using STATA software (version 9.2).

## **FINDINGS AND CONCLUSIONS**

77% of participants had had some type of first aid training at some stage in their lives, with 28% of the sample holding a current first aid qualification. 11% of participants had provided first aid at a Road Traffic Accident (RTA). 75.3% of participants who provided first aid at a (RTA) were travelling in a vehicle when they witnessed the RTA indicating the vital role that first aid training plays for those holding a drivers licence. The likelihood of using first aid skills was directly related to having a health care qualification. Having first aid training increased the likelihood of intervention along with owning a first aid kit and pocket mask. These findings indicate that first aid training, even if it is not current, is an enabler for providing first aid at RTAs. First aid skills most commonly used were changing posture, opening an airway and providing comfort and reassurance. Key concerns for first aiders included feeling a lack of follow-up, or opportunity to debrief, about the first aid experience. Strategies to increase first aid training, to improve information and support, and to increase the knowledge of first aider's are also discussed.

### Background

Road safety involves, in part, the development of cost effective strategies to limit the effects of injuries when they happen. After a RTA involving injury, the factors most likely to lead to death or disability are obstruction of the airway and uncontrolled bleeding (Oxer 1999). These are amenable to simple and early first aid intervention. Bystander first aid is important because the emergency response time for ambulance services, including in metropolitan settings in Australia, may result in delayed treatment and in many cases simple first aid interventions applied immediately can save lives. However, little is known about the prevalence of first aid qualification and/or skill among the driving population, the likelihood that drivers will be involved in situations where first aid skills may be utilised, or the type of first aid intervention that has been used. The likelihood that a skilled bystander will intervene is also important and a related question concerns the factors that motivate or de-motivate drivers in providing first aid care.

This project builds on precursor studies conducted in Western Australia (Oxer 1999) and Sweden (Larsson, Martensson & Alexanderson 2002). In Western Australia, researchers considered the use of first aid by bystanders in traffic accident situations and concluded that approximately 23% of road trauma patients attended by the St John Ambulance Service had received some form of first aid prior to arrival of the ambulance (Oxer 1999). This treatment was described as airway managed (2%); cardiopulmonary resuscitation (1.4%); bleeding control (4.5%); positioning (62%); defibrillation (0.05%); and other first aid such as reassurance and comfort (30%). In Sweden, a population study was conducted using a questionnaire attached to the Swedish National Road Administration survey. Of 2,800 randomly selected drivers, 39% of drivers had received first aid training and 30% had used their skills. Fourteen percent of

those with training had been bystanders at RTAs and at 20% of crashes a bystander had administered first aid (Larsson, Martensson & Alexanderson 2002).

These precursor studies raise several questions relevant to the Australian context. It is important to consider the potential impact of trained first aiders as bystanders at RTAs. What proportion of ACT licensed drivers have first aid training? How many have or would utilise their skills if required? What factors influence the decision to provide first aid care? What type(s) of first aid interventions have been used by bystanders? The research reported here addresses these questions and aims to provide knowledge that can be applied to driver training, the development of focussed public first aid training, and other community capacity and capability building strategies to mitigate the effects of road trauma.

### Introduction

With the importance placed upon first aid intervention at road traffic accidents (Oxer 1999), it is surprising that there is little literature discussing the role and perceptions of rendering first aid in these situations (Mabbott 2001) and the actions of first aiders. Alarming, new statistics released by The Council of Ambulance Authorities (2006) show a gradual increase in the average time taken for ambulances to arrive at the scene of a RTA across Australia and consequently the potential role of lay first aiders in minimising harm and improving outcomes for the injured is increasingly important. The Council of Ambulance Authorities (2006) reports that, in the Australian Capital Territory, in 50% of cases, an ambulance arrives within 7.5 min to a Code 1 call, and in 90% of cases, an ambulance arrives within 13.3 minutes. A Code 1 call is any call that requires the ambulance to respond urgently, utilising lights and sirens.

A report released by St John Ambulance Australia (2006), argues that the first trained responder at the site of an accident can significantly assist in the timely treatment of potentially life threatening or disabling injury. Similarly, Finn et al (2001) have found that bystander CPR “buys time” in a time-critical situation. As Pearn (2000) highlights, the domain of basic life support inescapably belongs to the incidental bystanders or opportunistic first responders. Whilst the thought of providing bystander first aid may be overwhelming for some, Eisenberg et al and Finn et al (2001; 2001) have shown that the outcomes of out-of-hospital cardiac arrest can be significantly improved by the early initiation of CPR. In this study there were no survivors for patients in ventricular tachycardia or ventricular fibrillation when the interval for initiation of basic life support was greater than 10 minutes.

## **The need for first aid training**

During the year 2006, 13 people died on ACT roads (ACT Department of Territory & Municipal Services 2006). Primarily, the goal of basic life support is to maintain the patients' airway, breathing and circulation until expert medical support is provided. First aid is defined as any subsequent measures that are provided to people once the affected person has been protected from further injury and help has been summoned (Larsson, Martensson & Alexanderson 2002). Ozer (1999) notes that after a crash involving injury, the two factors most likely to kill are obstruction of the airway causing suffocation, and uncontrolled bleeding causing death. Obviously, programs aimed at preventing all possible serious RTAs are important, however this challenge is one that has yet to be conquered by any jurisdiction. Therefore, harm minimisation techniques are vital in reducing the death and the impact of severe injury caused by RTAs. Realistically it is possible to provide the community with the skills to provide vital early intervention for victims of road trauma in order to prevent further injury or death.

A study by Hussain and Redmond (1994) found that 56.6% of the pre-hospital deaths that occurred in North Staffordshire, were due to RTAs, and occupants of cars were most vulnerable to injury. A number of studies have identified that relatively simple basic life support measures such as maintaining an airway have the capacity to reduce mortality. Hussain and Redmond (1994) studied what proportion of fatalities, both at the scene of accidents and before reaching the hospital, were preventable by early intervention. The results show that at least 60 people died before reaching the hospital and that up to 85% of those 60 people probably died due to airway obstruction. Similarly, Khangure (1998) found that airway obstruction was a contributing factor in the death of 123 cases (6.9%) in Western Australia between 1990-1997. It is argued that pre-hospital deaths may

be preventable with simple first aid techniques, which can be taught to the lay community.

The value and outcomes of first aid training programs were examined by Peterson and Russell (1999) who found that both immediately and six months after some type of first aid training, people are more likely to stop and provide assistance at a motor vehicle crash. Both Hussain (1994) and Khangure (1998) argue that at least 7% of road fatalities could be saved as a result of basic first aid measures taken at the scene and argue that this presents a great opportunity for the community to actively participate in reducing the road toll both in terms of road traffic related deaths and disabling injury.

### **The experience of first aid intervention**

A German study by Mauritz et al (2003) highlighted that, out of 2812 trauma situations, there was a bystander present in 57% (1602) of the cases. The bystander who assisted with first aid was usually from the police force, a relative, a friend or a stranger. A study by Jelinek et al (2001) found that with more training and more knowledge of correct procedures, people were more likely to perform basic life support in an event such as a RTA. It seems that often people do stop at the scene of an accident to render assistance. The first aid interventions most likely used are listed in Table 1.

**Table 1. Common first aid interventions**

<b>Study</b>	<b>Oxer (Western Australia)</b>	<b>Mauritz (Germany)</b>
First Aid Intervention (Most frequent interventions to least frequent interventions)	<ul style="list-style-type: none"> <li>• Positioning</li> <li>• Bleeding control</li> <li>• Other First aid, such as reassurance/ comfort etc</li> <li>• Airway management</li> <li>• CPR</li> <li>• EAR</li> <li>• Defibrillation by volunteers</li> </ul>	<ul style="list-style-type: none"> <li>• Application of dressing</li> <li>• Positioning</li> <li>• Control of haemorrhage</li> <li>• Ensure scene safety</li> <li>• Extrication</li> <li>• Clearing airway</li> <li>• Precautions against hypothermia</li> <li>• CPR</li> </ul>

Both Oxer (1999) and Mauritz's (2003) studies show that first aid intervention, whether the intervener is trained or not, has the capacity to save lives. Basic skills taught in first aid courses have the capacity to enable a bystander to stop a major bleed and help to maintain an airway; which may be all that is required until further medical assistance is available. In the potential time it may take for an ambulance to arrive at a RTA in Australia, bystanders have a great ability to provide basic life support in order to maintain life and potentially minimise disability.

Reactions to providing first aid at a RTA have been explored in some studies. Axelsson et al (1998) found that the emotional reactions of bystanders post intervention were related to victim out-come and whether the person lived or died. Attitudes to providing first aid were also explored in a study by Larsson et al (2002) where the incidence of being a bystander, the first aid measures provided at traffic crashes and the impact of first aid training on the risks people take driving were examined in the adult Swedish population. Larsson et al (2002) conducted a postal survey of 2800 road users in Sweden obtaining a 68% response rate. Not surprisingly, a majority of participants, (61%), had not had any first aid training in the last five years. Larsson et al (2002) also found that respondents with a higher level of education were more willing to participate in first aid training, which may indicate that training may need to be more targeted towards persons with different levels of education. Lastly, this study found that 41% of participants reported taking fewer risks when driving as a result of first aid training. These key concepts have been further explored in the current study.

### **To intervene or not?**

Surprisingly, there is little investigation into the perspectives of bystanders who have intervened at a RTA. Whilst many studies discuss the importance of first aid in preventing injury and mortality, Larsson et al's (2002) study is one of the only



pieces of research examining the motivations and perspectives of bystanders.

Certainly, many studies show that there is a low incidence of first aid intervention. Henriksson et al's (1998) Swedish study suggests that the absence of first aid intervention contributed to the death of 4% of traffic accident victims. A Western Australian report notes that 7% of deaths can be related to a lack of first aid (Mabbott 2001) and Ashour et al (2007) suggest that 4.5% of potential prehospital deaths may have been prevented with first aid intervention.

A Polish study (Goniewicz 1998) explored the reasons why people are not willing to intervene at a RTA. In their study of 560 government drivers, they found that there were primarily psychological barriers that caused people not to intervene in accidents. The psychological barriers expressed by the participants included feelings of inadequacy; expressed as a lack of the necessary first aid skills, due to poor quality training and/or poor skills transfer. Eisenburger & Safar (1999) also note that psychological barriers may impact whether or not bystanders intervene at an accident site. They report that the crowd at the scene can be frightening and stage fright can make helpers nervous resulting in their declining to intervene.

Cheung (2003) found that the most common reason for not having first aid training was lack of time, with only 12% of the sample group with current first aid training. Surprisingly, Cheung (2003) found that those with first aid training still had a level of knowledge that was far from satisfactory and this needs further investigation. A study by Kendrick (1998) of parental first aid interventions, found that 75% of participants knew the correct treatment for a variety of basic first aid scenarios. However, 25% of the participants did not feel confident to use their skills to intervene. Furthermore, ethnic minorities were likely to have less knowledge but be more confident to take an active role in first aid. Further to the lack of skills, whether real or perceived, Mabbott (2001) suggests two other

reasons why people do not render assistance at RTAs: a perception of personal harm (such as contracting an infectious disease) and the perceived risk of litigation. In concurrence with Mabbott (2001), Eisenburger and Safar (1999) note that fear of legal prosecution seems to make some bystanders and health professionals hesitate to act. The fear and safety concerns of interveners were also explored by Jelinek et al (2001) who noted that a reluctance to intervene and provide first aid predominantly resulted from fear of health and safety risks such as infection.

### **Where is first aid training heading?**

The current literature discusses both the need for first aid intervention at RTAs, the willingness of bystanders to perform first aid, the reasons why they may hesitate to become involved and the most commonly used interventions. There is consensus within the literature that there is a need for new methods of delivery of first aid information, and the need to target specifically categories of people within the community such as ethnic minority groups and young parents (Kendrick & Marsh 1998). Most importantly, the literature shows that whilst there may be a need to reassess the delivery methods of first aid courses (Finn et al. 2001; Goniewicz 1998; Kendrick & Marsh 1998), an increase in first aid training, or skills, does lead to an increase in confidence and/or intervention rates of interveners (Larsson, Martensson & Alexanderson 2002; Mauritz et al. 2003).

Peterson and Russell (1999) explored the intervention rates following an intensive one-hour first aid course with community members. This study found that, following the course there was an increased rate of intervention by course participants and the knowledge provided in the course was retained at a satisfactory level for at least 6 months. Recommendations made by St John Ambulance Australia (2006) include that first aid training should be mandatory for motor driver licence holders. Eisenburger & Safar (1999) also add that

training programs should include realistic information of the frightening appearance of a victim as well as the need to ensure debriefing of all bystanders who provide first aid as routine. Debriefing was also flagged as an issue by Axelsson et al (1996) who discussed debriefing as one of the crucial elements to a bystander interpreting their intervention as a positive experience. In a study by Axelsson et al (1998), one of the key findings was that the opportunity for debriefing influences the overall psychological reaction of a bystander who has performed first aid. Axelsson et al (1998) has found that better post intervention care for lay rescuers enables them to repeat a past endeavour and encourages others to learn and perform CPR.

Recommendations about how first aid courses are run, what information is provided, whether training should be mandatory and the delivery methods of first aid training are discussed throughout the literature. Importantly, Hussain (1994) notes that the high incidence of airway obstruction in preventable deaths highlights the need for first aid training, especially among motorists, because 56.6% of deaths were due to RTAs. Hussain (1994) suggests that knowledge of basic airway protection and the recovery position could be tested easily and quickly before a driving licence is issued, and that every car should have a basic first aid kit. Overall, the literature demonstrates the potential value of first aid training as an element in strategies to reduce mortality and to improve the outcomes for those injured in RTAs.



### Aims and Objectives

The project was established to inform our understanding of the:

- the prevalence of first aid training among drivers in the ACT;
- the incidence of being a bystander and of providing first aid by bystanders at traffic crashes;
- the range of first aid skill being utilised in this situation;
- the motivation to intervene as a bystander; and
- the perceived impact of first aid training on the risks people take in road traffic.

### Design

The study was conducted in four phases.

Phase 1 - a preparatory stage involving recruitment and training of a research assistant, gaining of ethics approval from the various institutions and agencies that would be involved in the project, and negotiating with those institutions and agencies for identification of and access to informants.

Phase 2 - the development and implementation of the questionnaire. The questionnaire was adapted from approaches utilised by Oxer (1999) and Larsson et al (2002). Approximately 12,500 ACT Government employees received an email inviting them to participate in an on-line survey. Basic demographic data, information about previous first aid training, and the use of first aid skills at traffic accidents were incorporated into the survey questionnaire (See Appendix A).

Phase 3 - development of the database in preparation for data analysis. The data base was established and data transferred directly into an Excel file stored securely in a password protected computer system. No personal identifying data was collected as a component of the survey.

Phase 4 - comprised data analysis and reporting of findings.

## **Population and Sample**

An emailed information sheet was sent to ACT Government employees inviting participation (See Appendix B). Population surveys of this kind have been distributed to ACT Government staff previously and the approval for undertaking such research rests with the Heads of government departments. In this case, the Chief Minister's Office endorsed the content and approved distribution of the survey. The potential population of respondents was 12,500.

## **Ethics**

Ethics approval was obtained from the ACT Health and Community Care Human Research Ethics Committee and the University of Canberra Committee for Ethics in Human Research. There was no foreseeable harm associated with the project for participants who volunteered and submitted their surveys anonymously. Recruitment material referred all potential participants to a web-based site for additional advice on emergency first aid treatments (St John Ambulance Australia). This strategy was developed in response to several questions from participants concerning where first aid advice could be obtained.

The risk of an emotional reaction as participants recalled their experience(s) was addressed by advising participants to discuss any concerns with their local doctor. Responses were monitored during the data collection phase and the project team identified no reports of emotional distress.

## **Data Collection**

The data collected was held on a secure ACT government web server with a back-up copy accessible only to the research team at Flinders University.

Data collection for the project was completed at the end of June, 2006. A total of 773 persons responded to the email survey, providing a response rate at 6.2%.

## **Data Analysis**

Descriptive statistical analysis of quantitative data was initially undertaken using the **Statistical Package for the Social Sciences**, (SPSS Version 14.0) and thematic analysis of qualitative data was completed. Further detailed comparative statistical analysis was completed using STATA software (version 9.2).

Various binary and count outcomes were obtained from the questionnaire and were assessed using both univariate and multivariate analysis. Binary outcomes considered were:

- whether or not volunteers owned a first aid kit;
- whether or not volunteers owned a first aid mask;
- whether or not subjects had used first aid at an accident in the last 3 years;
- specific first aid skills that had been applied at an accident (i.e. ensuring safety, performing CPR, opening an airway, maintaining breathing, changing posture, application of a dressing, stabilising a fracture, and providing reassurance);

- specific concerns about performing first aid at an accident (i.e. being concerned about making a mistake, feeling overwhelmed, the potential for infection, not being able to remember first aid skills, the accident scene being unfamiliar, and having legal concerns);
- whether or not subjects had no concerns about providing first aid; and
- reasons for not giving first aid at an accident (i.e. not having any first aid training, no first aid being necessary, being afraid of making a mistake, being overwhelmed, having an offer of providing first aid refused, risk of infection, having forgot first aid skills, the accident scene being different to that expected, being concerned about legal risks, and having concerns over inadequate safety).

Univariate analysis was performed using chi-squared tests to assess the association between each dependent variable and level of education, health care job category, whether or not first aid training had been performed in the last 3 years, age (in age groups 17-24, 25-34, 35-44,45-54 and 55-65+ years of age) and gender.

Multivariate analysis was performed using generalised linear models with logistic and Poisson family distributions for the binary and count outcomes respectively. All model effects are reported as either odds ratios or incidence rate ratios for binary and count outcomes respectively, and were obtained after *a priori* adjustment for education, health care job category, age, gender and whether or not first aid training had been performed in the last 3 years.

Effects of independent variables were considered significant for  $p < 0.05$ .



## Results

### Description of Participants

#### *Response rate*

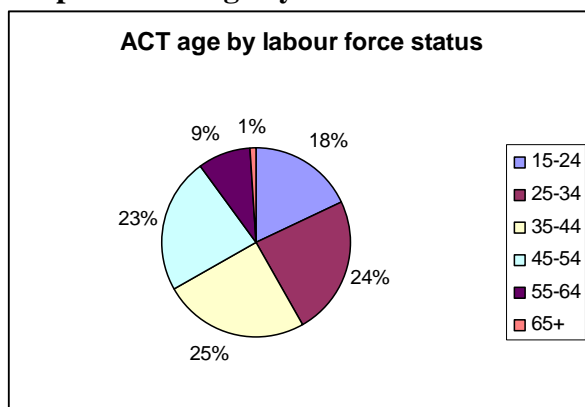
A total of approximately 12,500 persons were invited to participate via email and 773 responded, providing a 6.2% response rate. Because the sample population was drawn from ACT Government employees a large proportion of respondents were health professionals. This relatively low response rate for the cohort of ACT Government employees is an effect in part of the fact that many of these individuals are provided with authority to have access to email, and consequently are considered to be members of the 'population' studied, but relatively few take up this opportunity unless email access is a requirement of their work/position.

#### *Age and Gender*

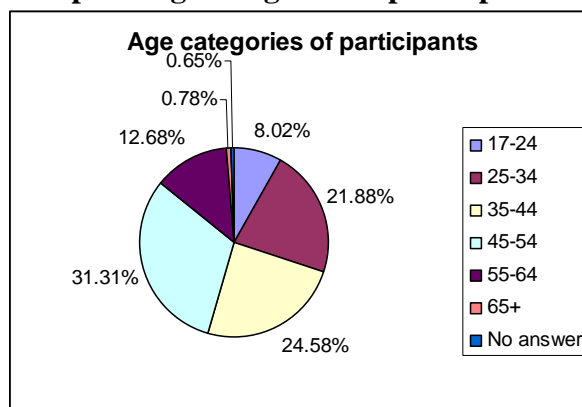
The study population was similar in age group breakdown to the broader ACT population (See Graphs 1 & 2). The breakdown by age groups was as follows; 8% (n=62) were under 24 years, 22% (n=170) were 25-34 years, 24.6% (n=190) were 35-44, the majority of respondents, 31.3% (n=242) were aged 45-54, 13.5% (n=104) were over 55 years and 0.6% (n=5) did not specify their age.

Females dominated the sample group (69%, n=530), with a lesser representation by males (31%, n=243). This continues to be true even when the health professionals are excluded with the gender breakdown of the sample excluding health professionals being 64% (n=368) female and 36% (n=207) male.

**Graph 1. ACT age by labour force status**



**Graph 2. Age categories of participants**



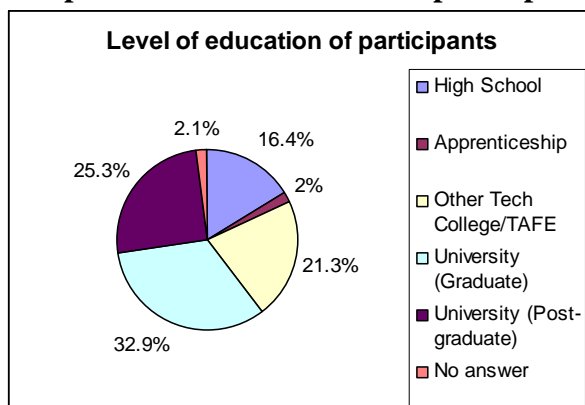
### ***Level of Education***

When asked about their highest level of education, the largest group represented in the sample were university graduates with 32.9% (n=254). University postgraduates were the second largest grouping, representing 25.4% (n=196) of the sample followed by technical college graduates, secondary school graduates and apprenticeship holders (See Graph 3).

### ***Drivers Licence and Vehicle Ownership***

Results showed that the majority (96.9%, n=749) of the participants owned a car. Of this group, 83.7% (n=647) had an ACT drivers licence. A relatively large proportion held licenses issued in NSW (11.8%, n=91).

**Graph 3. Level of education of participants**



## *Health Care Qualification*

Because the sample was drawn from within the ACT government workforce a relatively large proportion of the pool of potential respondents were health professionals. A total of 25.6% (n=198) of the respondents indicated that they held a health care qualification; 83.1% of this group being female and 16.9 % male. This imbalance is explained in part because a large proportion of the health professionals working within the ACT government and completing the survey were nurses (42.1%, n=77) and the nursing workforce in Australia is predominately female.

Of those with a health care qualification, 42.1% indicated they were Enrolled Nurses or Registered Nurses making this group the largest health qualification group to participate in the survey. The nursing category reflected the expected gender differential with 91% (n=70) being female and only 9% (n=7) being male. It should be noted that national nursing figures demonstrate that on average males make up 8.6% of the nursing workforce. ACT nursing data also show that the nursing population is dominated by females with only 8.7% of nurses being male as reported in 2004 (Australian Institute of Health and Welfare printed 2006).

A total of 25% (n=47) of those with a health care qualification were allied health professionals, including dieticians, nutritionists, occupational therapists, physiotherapists and social workers. Lastly, 18.6% (n=34) of the sample with a health care qualification indicated that their qualification was a first aid course of some description including basic, advanced and general first aid courses. Approximately 15% of those responding with a health care qualification were drawn from other groups as shown in Table 2.

**Table 2. Health professionals gender and health qualification category**

Gender		First Aid Course	Allied Health	Nursing	Health Science	Medical	Other	Total
Male	Count	11	5	7	5	2	1	31
	% of Total	6.0%	2.7%	3.8%	2.7%	1.1%	0.5%	16.9%
Female	Count	23	42	70	9	3	5	152
	% of Total	12.6%	23.0%	38.3%	4.9%	1.6%	2.7%	83.1%
<b>Total Count</b>	<b>Count</b>	<b>34</b>	<b>47</b>	<b>77</b>	<b>14</b>	<b>5</b>	<b>6</b>	<b>183</b>
	<b>% of Total</b>	<b>18.6%</b>	<b>25.7%</b>	<b>42.1%</b>	<b>7.7%</b>	<b>2.7%</b>	<b>3.3%</b>	<b>100%</b>

## Quantitative Data Analysis

### *First aid training*

Participants were asked about their first aid training, whether they had completed training within the last three years and who had conducted their most recent first-aid course.

A total of 77.9% (n=602) of the sample had attended some form of first aid training at some stage in their lifetime. There was no significant difference between males and females in the proportion having completed first aid training at some time (77% of males and 78% of females).

Only 28.8% (n=223) of the sample had completed some first aid training in the last three years and would be considered to have a current qualification.

Participants were asked to indicate who their first aid course provider was when completing the survey. Results showed that St John Ambulance Australia was the largest provider of first aid courses with 52.6% of people using this organisation as their provider. Other providers of first aid courses are shown in Table 3. When asked who had paid for their first aid course, participants indicated that in 48.3% (n=288) of cases, work was the key provider for the cost of a first aid course. In 38.3% (n=228) of cases, the participant had paid for their first aid course

themselves and interestingly only 0.8% (n=5) of people had their first aid course paid for by a sporting club (See Table 4).

**Table 3. First aid course provider**

	<b>N</b>	<b>Percent</b>
St John	296	52.6%
Red Cross	113	20.1%
Parasol EMT	46	8.2%
CIT	12	2.1%
Other	96	17.1%
Total	563	100.0%
Not applicable	210	
<b>Total</b>	<b>773</b>	

**Table 4. Who paid for your first aid course?**

	<b>N</b>	<b>Percent</b>
Work	288	48.3%
Myself	228	38.3%
Community Sponsor	6	1.0%
Sporting Club	5	0.8%
Other	69	11.6%
<b>Total</b>	<b>596</b>	<b>100.0%</b>

### *Reasons for doing a first aid course*

Motivation for doing a first aid course was examined in the study and assisting family and friends (31.1%, n=236) along with being a pre-requisite for work (32.6%, n=248) were the most common reasons given (See Table 5). The responses for ‘Other’ reasons for doing a first aid course were separately examined to provide further detail (Table 5) as to the motivation to do a first aid course. Being a work requirement (47.3%, n=89) was the highest representation, followed by being part of a course curriculum (26.6%, n=50).

### **Intervention at RTAs**

Univariate and multivariate analysis was performed on all data for the following questions;

- Do you have a first aid kit in your car?
- Do you have a “pocket mask”?
- Have you used first aid at the scene of a car accident in the last three years?

**Table 5. Reasons for doing a first aid course**

	Reasons	'Other' reasons	N	Percent
	To assist family and friends		236	31.1%
	First aid in sporting activity		60	7.9%
	Allowance at work		26	3.4%
	Work asked me		248	32.6%
<b>Total</b>	Other		190	25.0%
			<b>760</b>	<b>100%</b>
		Work requirement	89	47.3%
		Personal interest	35	18.6%
		Manager	4	2.1%
		Part of course	50	26.6%
		Gain employment	10	5.3%
		Not applicable	585	-
<b>Total</b>			<b>188</b>	<b>100%</b>

Univariate analysis was performed on the subset of 85 subjects who had performed first aid in the last 3 years for the following questions;

- What first aid skills did you use at that time for the victim?
- During (or after) your intervention, did any of these things concern you?
- Why did you not use first aid at the accident scene?

In all analyses involving education, there were missing data for 21 subjects (i.e. at most 64 subjects with complete data).

### ***Do you own a First Aid Kit?***

Participants were asked if they owned a first aid kit and results showed that 40.5% (n=313) of people did in fact own a kit.

Further comparative analysis was performed to provide information regarding the link between owning a first aid kit, health qualification, and first aid training. In univariate analysis of the results, owning a first aid kit was associated with

having a health care qualification, the type of health care qualification, and

having had first aid training ( $\chi^2=18.9$ , 1df,  $p<0.001$ ).

In multivariate analysis, allied health workers, those without any health care qualification and females were less likely to have a first aid kit. Having trained for first aid, and being older increased the likelihood of owning a first aid kit, independently of age, sex and education ( $\chi^2=36.3$ , 1df,  $p<0.001$ ).

### ***Do you own a pocket mask?***

Results showed that 31.6% (n=244) of participants carried a pocket mask. In univariate analysis, owning a pocket mask was associated with having a health care qualification ( $p<0.001$ ), the type of health care qualification ( $p<0.001$ ) and having had first aid training ( $p<0.001$ ).

In multivariate analysis, having trained for first aid increased the likelihood of owning a pocket mask, independently of age, sex and education (OR=10.6, 95%, CI=5.05-22.60,  $p=<0.001$ ).

### **Provision of first aid at RTAs**

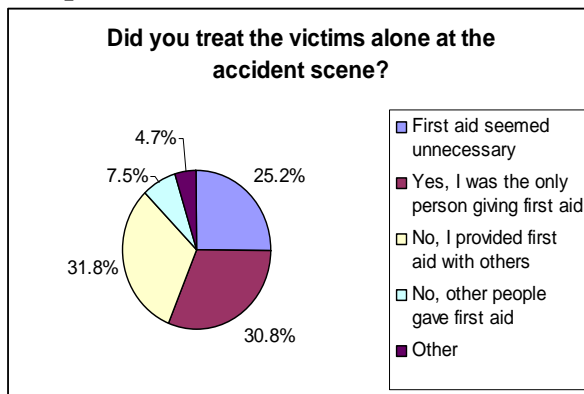
The majority of the sample (89%, n=688) had not provided first aid at a road traffic accident. There was no difference in the likelihood of females or males providing first aid.

75.3% (n=64) of participants who provided first aid were travelling in a vehicle when they witnessed the RTA. It is important to note however, that an additional 21 people, out of the 85 people who have provided first aid at a RTA, did not provide information about whether they were travelling in a car or not.

When asked whether or not the participant treated the victim alone at the accident

scene, the results were equally divided between those providing first aid alone (30.8% of respondents, n=33) and those providing first aid with others (31.8% of respondents, n=34). 25.2% (n=27) of the sample who were present at a RTA felt that first aid was unnecessary and in 7.5% (n=8) of cases other people gave first aid (See Graph 4).

**Graph 4. Treatment of victims at a RTA**



In univariate analysis, having used first aid at an accident in the last 3 years was associated with having a health care qualification ( $p<0.001$ ), level of education ( $p<0.001$ ), type of health care category ( $p<0.001$ ), and having trained in first aid ( $p<0.001$ ).

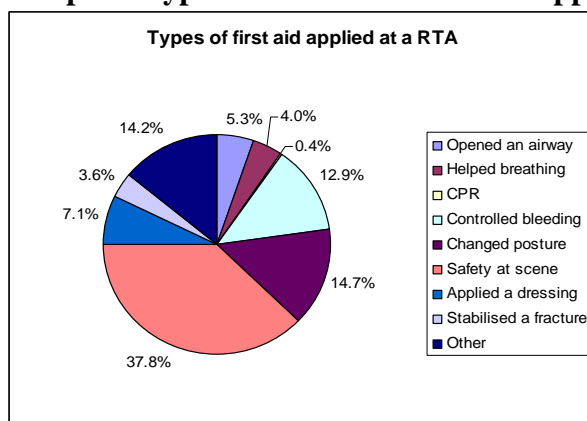
In multivariate analysis, respondents without any health care qualification were 80% less likely to have used first aid at an accident (OR=0.2, 95%, CI=0.08-0.49,  $p<0.001$ ). Having trained for first aid and being in the 25-34 year old age group compared to the 17-24 year old age group, increased the likelihood of having used first aid at an accident in the last 3 years (OR=2.7, 95%, CI=1.1-6.5,  $p=0.03$ ) and (OR=8.9, 95%, CI=1.1-71.4,  $p=0.04$ ) respectively, independently of sex and education.



## Types of first aid treatment provided at RTAs

When type of first aid treatment provided at RTAs was examined, ensuring safety at the scene was most commonly listed (37.8%, n=85 of respondents). Changing posture was an intervention provided by 14.7% (n=33) of respondents and opening an airway was utilised by 5.3% (n=12) of the sample group. The breakdown of other treatments applied shows; 12.9% (n=29) of participants controlled bleeding, 7.1% (n=16) of participants applied a dressing, 4% (n=9) of participants helped breathing, 3.6% (n=8) stabilised a fracture and 0.4% (n=1) of the participants actively provided Cardio Pulmonary Resuscitation (See Graph 5).

**Graph 5. Types of first aid treatments applied at a RTA**



Other types of first aid treatment listed by participants included: 64.7% (n=22) comfort or reassurance; 14.7% (n=5) an assessment of the patient; 11.8% (n=4) treated for shock and 8.8% (n=3) immobilisation of the victim. Other first aid treatments mentioned included applying pressure bandages, providing water and blankets, calling 000 and supporting the patient as they died.

In univariate analysis, the total number of first aid methods applied at an accident in the last three years was associated with level of education ( $p=0.02$ ). In multivariate analysis, there were no significant independent predictors of the total number of methods applied at an accident in the last three years.

### ***Opened an airway***

In univariate analysis, having a health care qualification was associated with having opened an airway ( $p=0.04$ ). In multivariate analysis, there were no significant independent predictors of having opened an airway.

### ***Gave CPR***

Only one subject performed CPR. No meaningful analysis was therefore possible.

### ***Maintained Safety***

In multivariate analysis, there was no association between education, gender and having trained or not having trained in first aid and having maintained safety at a first aid accident. There was an increase in odds of having maintained safety with increasing age (OR=2.4, 95%, CI=1.2-5.1,  $p=0.02$ ).

### ***Stabilised a fracture***

In univariate analysis, there was an association between having trained in first aid and having stabilised a fracture ( $p=0.04$ ). Thirty-three percent of subjects who had not received first aid training had stabilised a fracture ( $n=2$ ) compared to eight percent of subjects who had received first aid training ( $n=6$ ). The odds of having stabilised a fracture for those who had received first aid training compared to those who had not remained significant in multivariate analysis (OR=0.02, 95% CI=0.00-0.42,  $p=0.01$ ) after adjusting for education, having trained in health care, gender and age.

## Concerns during or after intervention

Participants were asked about their concerns either during or after they had intervened at a RTA. Interestingly, results showed that for many of the participants (44.8%, n=60) no issues concerned them after intervention. Following this, the key concerns listed by participants were that they were afraid they made a mistake (9.0%, n=12), and equally concern for safety (8.2%, n=11) and concern for legal risks (8.2%, n=11) (See Table 6).

**Table 6. During (of after) your intervention, did any of these things concern you?**

	<b>N</b>	<b>Percent</b>
Afraid I made a mistake	12	9.0%
Concerned for my safety	11	8.2%
The scene was overwhelming	10	7.5%
Concerned about infection	6	4.5%
Problems remembering first aid steps	5	3.7%
Different to how I was taught it would be	44	3.0%
Concerned about the legal risks	11	8.2%
None of these things concerned me	60	44.8%
Other	15	11.2%
<b>Total</b>	<b>134</b>	<b>100.0%</b>

### *Concerns about the scene being overwhelming*

In univariate analysis, subjects trained in first aid were 7.4 times less likely ( $p=0.02$ ) to be concerned about the scene being overwhelming. However, in multivariate analysis this association was no longer significant after adjusting for age, sex and level of education.

### *Concerns about infection*

In univariate analysis, 10% of those with a health care qualification were concerned about infection compared to none of the subjects who did not have a health care qualification ( $p=0.04$ ). Since all those concerned about infection were nurses, there was also a significant association with the type of health care qualification ( $p=0.02$ ). In multivariate analysis there were no other significant

associations with having concern about infection at a RTA. Determination of an odds ratio and significance value for health care qualification and health care categories were not possible in multivariate analysis due to all cases being in one category.

### ***Having no concerns after intervention***

In univariate analysis, although there was no association between having no concerns at a RTA and the level of education of the subject ( $p=0.17$ ), in multivariate analysis this association became significant (OR=0.55, 95%, CI=0.33-0.92,  $p=0.02$ ). Thus, subjects with higher levels of education were less likely to have had no concerns. In particular, Postgraduate students were *less* likely to have *no* concerns at a first aid accident compared to subjects with a high school education (OR=0.13, 95%, CI=0.02-0.99,  $p=0.049$ ). In addition females were also less likely to have had no concerns compared to males (OR=0.17, 95%, CI=0.05-0.60,  $p=0.006$ ).

### ***Having other concerns after intervention***

In univariate analysis, there was an association between the type of health care qualification, and having had any other concerns ( $p=0.01$ ). Three out of four subjects in Allied Health employment had had other concerns compared to less than thirteen percent in all employment categories. In multivariate analysis there were no significant associations with having had other concerns after adjustment for age, sex and level of education.

## Reasons for not intervening

In univariate and multivariate analysis, no significant associations were found for the reasons why people chose not to intervene at the accident scene. 50.9% (n=54) of those people who did not intervene felt that first aid seemed unnecessary at the accident scene and 15.1% (n=16) did not intervene, as they were not trained in first aid. Other reasons for not intervening at the accident scene are shown in Table 7.

**Table 7. Reasons for not using first aid at the accident scene**

	<b>N</b>	<b>Percent</b>
Not trained in first aid	16	15.1%
First aid seemed unnecessary	54	50.9%
Afraid I would make a mistake	9	8.5%
The scene was overwhelming	5	4.7%
Victim refused treatment	5	4.7%
Concerned about infection	6	5.7%
Could not remember the necessary first aid steps	3	2.8%
Concerned about the legal risks	5	4.7%
Scene was unsafe to render assistance	3	2.8%
<b>Total</b>	<b>103</b>	<b>100.0%</b>

## First aid training and its impact on drivers

Analysis was performed looking at first aid training and the impact it had on driver behaviour (See Table 8).

Findings indicated that 50.6% (n=305) felt that first aid training did not impact their risk taking behaviour in traffic and 44.7% (n=269) of participants felt it did, suggesting no agreement on this question.

**Table 8. Comparisons of first aid training and its impact on drivers**

		<b>As a result of my first aid training I take fewer risks when driving</b>						
		<b>Strongly agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly disagree</b>	<b>N/A</b>	<b>Total</b>	
First Aid Training?	Yes	Count	41	228	271	34	28	<b>602</b>
		% of Total	6.8%	37.9%	45.0%	5.6%	4.7%	<b>100.0%</b>

## Qualitative data analysis

Qualitative data was collated from the final question in the survey, which asked participants if there was anything they would like to share about their first aid experience (See Appendix C).

The data was analysed for recurring themes.

Burnard (1991) describes the method of thematic analysis as a fourteen step process. Essentially the researcher reads and re-reads the responses noting, headings, or key phrases, which are then grouped into sub-headings. Once all sub-headings are identified, similar headings are collapsed into key themes and each sub-heading is allocated to a theme. For this project, each theme has been identified and the dialogue of the participants grouped together to provide exemplars of each theme. The complete transcription of qualitative responses is provided in Appendix D.

Four key themes were identified in the thematic analysis of the qualitative data:

1. A sense of confidence;
2. Concern for self;
3. Being a first aider; and
4. Self esteem and being disregarded.

In addition, a fifth subject area, 'training and resources required', is also reported. This area addresses the practical issues of first aid delivery, including equipment and resources, as well as opinions on the need for compulsory first aid training.

The themes are described individually and participant exemplars used to illustrate each theme.

## *A sense of confidence*

For the participants in this study, experience of confidence was one feature where there were no universal opinions. On one hand, some participants felt that having completed a first aid course gave a sense of confidence and assurance. Similarly, participants stated that with more training and experience they had acquired greater confidence and that more recent first aid training resulted in greater levels of confidence.

*First aid training has given me the confidence to render assistance when necessary. No.125*

*Not using a skill regularly increases the likelihood of forgetting and of losing confidence with ability. No.406*

Other participants in the study felt that rendering assistance at the scene of a RTA takes providers out of their comfort zone, leaving them fearful of making the situation worse, or causing harm to victims. Some participants felt under pressure at a RTA, causing difficulty in decision-making.

*I forgot everything I was taught and on reflection put myself and other road users at risk. No.487*

*I would be unwilling to assist if I was unsure of my capacity to be helpful for fear of making the situation worse. No.521*

*Being present at the scene of a major RTA took me right out of my comfort zone....situation demanded skills far above those of a first aid provider. No.718*

Overall, participants linked a level of confidence to having the skills necessary to treat victims, amount of exposure to a similar scene where first aid was necessary and a sense of being overwhelmed at the actual RTA. Interestingly, one participant felt a sense of powerlessness as their first aid skills seemed insufficient.

*A sense of powerlessness as the victim was trapped in the car and in pain but I couldn't really help other than reassure her until the fire brigade and ambulance officers arrived, which seemed to take an eternity. No.607*

### **Concern for self**

Participants also discussed the issue of concern for self, which was related to the possible outcomes of treatment, litigation and safety. The possible legal ramifications associated with providing first aid to a victim of a RTA were highlighted as a concern by a number of participants in the study. Particularly participants noted that their fear of litigation influenced their actions at an accident site, along with their concerns after intervention.

*I would also be concerned about the potential to be sued by a family member if I was unable to save someone, or they were left severely disabled, whether or not my intervention had contributed. No.103*

*The risk of legal action against the first aider and other potential consequences for the helper, is always a concern. No.169*

*(I am) always concerned that I might be sued if something goes wrong with the application of first aid. No.298*

Essentially, these concerns about litigation indicate the need for further information to be provided to the public regarding the legal consequences of bystander intervention at a RTA in order to allay these fears.

Infection was also described by participants as one of the concerns of intervening at a RTA. Interestingly, no one specifically discussed the issue of HIV/AIDS transmission, although participants in the study discussed the risk of blood contact.



*I would be concerned these days about treating an injured person who was bleeding. I would size up their appearance and type of car in evaluating the possible risk to myself. I would leave an accident site if a person was behaving violently and offer no assistance. No.351*

*I am reluctant to have blood contact and should keep rubber gloves and face mask in my car. No.403*

The qualitative data provided by respondents also uncovered personal safety as an issue when providing first aid at a RTA. As identified by the following two participants, an overall sense of personal safety was important when deciding whether or not to intervene.

*I witnessed a very severe RTA (fatality), I stopped and phoned 000 in the meantime several other bystanders stopped. It was on a freeway and I had stopped in a very dangerous spot and couldn't cross the road so once I had seen help was there I continued on. No.434*

*I also believe I would be wary of being injured myself if I were at the scene of an accident No.159*

The sense of safety for those who intervene is a factor that has not been discussed in previous research and requires further investigation.

### ***Being a first aider***

Assuming the role of first aider at the scene of a RTA raises several issues for responders. For example, first aiders may be apprehensive about giving first aid treatment, be ill prepared and yet feel obligated to use their knowledge and to be of assistance.

*I believe first aid training would improve my confidence in the event of being at the scene of a car accident - but at the same time I don't really want the responsibility.*

Issues concerning the first aider taking “ownership”, or control over the RTA scene, were identified as concerns by participants in the study.

*If anything, I usually find that there are too many people around to deliver first aid, and most people like to take complete ownership of the victim/patient. They don't usually want to listen to anyone else. No.748*

*It can be difficult if there are a number of other people helping...there may be a number of people trying to "assert" themselves as experts. No.73*

*When I arrived at the scene there were around 10 bystanders all doing nothing. I am constantly amazed at...the number of people willing to stand around and watch the aftermath of an accident but not offer to assist. No.248*

*In the past, people have seemed to observe at accidents, but appear unwilling to get involved unless forced to. No.256*

Participants commented upon first aiders being ineffective at a RTA especially concerning those who ‘stood around doing nothing’. Whether these actions by first aiders were simply the case of confidence to intervene or not was not explored further.

### ***Self esteem and being disregarded***

Many of the participants found their experience of providing first aid at a RTA distressing and concerning. The apparent lack of opportunity to debrief, or ability to follow-up on victim outcomes, left many participants feeling helpless and traumatised.

*There was no debriefing or support for the first aid assistant and my opinions and observations at the scene were not validated. It was an extremely traumatic experience and we were given no information from the police after we left the scene despite phoning and asking how the other victims were. No.613*

*I was very traumatized by it later, which I hadn't considered. It wont prevent me in the future from assisting but certainly this needs to be discussed when giving the training and maybe some ideas possible contacts to assist helpers at scenes. No.774*

*The victim was in shock and hostile. It was not an esteem building experience. No.15*

This finding highlights the need for more structured approaches to debriefing, a finding that has also been discussed by Eisenburger & Safar (1999) and Axelsson et al (1996). As identified in these previous studies, meeting the need for bystanders to debrief may in turn, improve their experience of the event and increase the chances of intervention on other occasions.

A feeling of helplessness, especially for participants attending RTA involving fatality, was also highlighted.

*The fellow in the back seat was gurgling... I tried to open his airway but he drowned on his blood. I have always felt somewhat guilty for this incident. The situation was highly traumatic and it has been a formative experience in my life. No.778*

This finding links back to the need for bystanders to be provided with a form of debriefing, especially in situations involving serious trauma. Interestingly it was found that some participants had a negative attitude concerning emergency crews, who were reported to disregard first aiders.

*Total disregard by fire, police and ambulance officers to the assistance provided by witnesses before the arrival of the emergency staff. No.128*

This issue emphasizes the need for emergency crews to be aware of the efforts and attempts of bystanders who have intervened at RTAs.

## ***Training and resources required***

The potential for first aid training as a compulsory component of testing for issue of the drivers license, was identified as a concern by participants.

*I think that all drivers with a current license should have at least CPR training. No.221*

*Maybe some basic first aid training could be incorporated into driving lessons No.662*

*Yes, I honestly believe first aid should be compulsory. As soon as you are able to have a drivers licence, you should also obtain a first aid certificate No.805*

Previous studies have discussed the issues surrounding mandatory first aid training for all licence holders (Hussain & Redmond 1994; St John Ambulance Australia 2006). This theme was strongly represented by the participants throughout the qualitative section of the survey with many feeling that the benefits of knowing basic first aid would outweigh the costs involved.

Some first aiders found their first aid equipment inadequate for treatment of victims. It was also noted that the ability to call for help for some participants was a difficulty at the RTA scene.

*Ability to call for help (ambulance), mobile phone, should be included in the first aid kit No.218*

*Being present at the scene of a major RTA took me right out of my comfort zone and my car "first aid" kit was completely inadequate. Very thankful when the paramedics turned up with additional resources. Situation demanded skills far above those of a first aid provider. No.718*

As identified by these participants, a first aider's comfort zone is especially stretched when faced with a RTA. This was also acknowledged by other participants who discussed their concerns related to feeling overwhelmed with information after attending a first aid course.

*Only that I feel quite overwhelmed after doing the First Aid Certificate. It was wonderful, and I learned a lot, but there was so much information presented in a relatively short time that I really didn't feel that I had enough time to take it all in. No.636*

Overall, participants felt that perhaps the resources needed to adequately provide care to a RTA victim could be improved, as the scene is often overwhelming, and remembering the content from the first aid courses can be challenging.



## Discussion

The study has investigated the experience among road users in the ACT of providing first aid at the scene of RTAs and highlights a number of issues relating to first aid training and the potential of immediate first aid care in harm minimisation for victims of road trauma.

The sample is representative of the ACT population as a whole across demographic data for age. Demographic data for level of education within the ACT population was not available. Females dominate the health care category and this also reflects broader population statistics for health care professionals in the ACT.

It can be argued that health care professionals may be more likely to respond to a health research survey. For this reason the results are presented for health care professionals and lay people as separate cohorts and the findings are discussed in relation to these different cohorts. It may be argued that people who have attended a RTA and used first aid could be more likely to respond to the survey. It has not been possible to determine the extent of this effect but it should be noted that the principal focus of this study has been to investigate the first aid interventions used and the factors impacting on individuals who have used first aid.

77% of participants had completed some type of first aid training at some stage in their lives, with 28% of the sample holding a current first aid qualification. These figures are similar, though slightly higher than figures discussed in a recent personal communication about national market research (St John Ambulance Australia 2007) which indicate 63% of Australians have trained in first aid at some time. Motivation for doing first aid training was mainly related to the participant's work role, or to assisting family and friends. Interestingly, the

number of participants supported by community groups and sporting clubs in gaining first aid training was small.

### **First Aid Training and Equipment**

40.5% of the sample group owned a first aid kit, and 31.6% carried a pocket mask. Statistical data analysis showed that having trained for first aid increased the likelihood of owning both a first aid kit and pocket mask. Being older increased the likelihood of owning a first aid kit, independently of age, sex and education. Owning a pocket mask was also associated with having a health care qualification and the type of health care qualification.

Respondents expressed concern about the adequacy of first aid kit contents and argued in support of more drivers being trained in first aid. Some suggested that basic training should be compulsory. The case for this strategy has been made previously and is supported by these findings (St John Ambulance Australia 2006). Participants also found that first aid training lacked realism and this finding is also supported in previous research by Eisenburger & Safar (1999).

### **First Aid Intervention**

11% of respondents had provided first aid at the scene of a RTA and 75.3% of these were travelling in a vehicle when they stopped to provide first aid. About half of those who provide first aid do so alone. Having trained for first aid and being in the 25-34 year old age group compared to the 17-24 year old age group, increased the likelihood of having used first aid at an accident in the last 3 years.

The most common first aid interventions used are ensuring safety at the scene, changing posture and controlling bleeding. Other interventions included providing reassurance, treatment of shock and providing blankets. Each of these



interventions has the potential to significantly improve outcomes for the injured. Oxer (1999) and Mauritz (2003) found that positioning, reassurance and controlling bleeding were the most common interventions required at RTAs.

Whilst lifesaving interventions such as opening an airway, controlling bleeding and giving CPR were infrequently performed and are rarely required; they are more likely to be applied by health professionals. Jelinek et al's (2001) study also found that with more training and improved knowledge of correct procedures, people were more likely to perform basic life support interventions in an event such as a RTA. Oxer (1999) notes that the two factors most likely to kill are obstruction of the airway causing suffocation, and uncontrolled bleeding causing death. Consequently, skill and confidence in applying these simple lifesaving measures is important on those occasions where these interventions are necessary.

In general, the likelihood of using first aid skills was directly related to having a health care qualification. In particular, opening an airway and stabilising a fracture were interventions directly linked to having a health care qualification. However, importantly, having first aid training also increased the likelihood of intervention.

Maintaining safety at the scene after the accident has occurred is an important activity although its impact on mortality and morbidity has not been studied. There was an increase in odds of having maintained safety at a RTA with increasing age. This finding adds to the very limited information currently available on those factors that influence the likelihood of intervention and may indicate that increasing age and life experience correspond with an increased level of confidence in these challenging situations.

The findings also showed that in 50% of all cases where a participant stopped to provide first aid, it was deemed necessary. In addition 15% of people who did not administer first aid at the scene stated that they were not trained in first aid and chose not to intervene. These findings suggest that there is scope for first aid training to have a greater impact at RTAs because in 50% of cases where people do stop to assist first aid is required and 15% of those people who do stop might have intervened if they were trained. First aid training is an enabler for intervening at RTAs and simple interventions, such as maintaining safety or providing comfort and reassurance, can improve outcomes for the victims.

### **Concerns during or after intervention**

The findings of this study show that 44% of first aiders at a RTA have no concerns either during, or after their intervention. People with a higher education are more likely to have concerns, along with females.

Of those in the sample who expressed they had concerns during or after their intervention, the key concerns identified were primarily related to first aid knowledge, legal issues and safety. Concerns about making a mistake whilst providing first aid and being concerned about the legal risks indicate an overall concern about safe practice and legal prosecution. These issues have been discussed previously in the literature. Mabbott (2001) suggests that the perceived risk of litigation is one of the key reasons people do not render assistance at a RTA and Eisenburger and Safar (1999) note that fear of legal prosecution seems to make some bystanders and health professionals hesitate to act. Interestingly, this study did not support the conclusion that health professionals have more concerns about litigation than the general public.

Being concerned for the first aider's own safety was noted as an issue when providing first aid at a RTA. This finding has been supported by Mabbott (2001)

and Jelinek et al (2001) who claim that the reluctance to intervene at a RTA predominantly results from concern about possible health and safety risks such as infection. Concern about the risk of infection was also examined separately in the study with a surprisingly low number of people being concerned about infection (4.5%). It was also found that health professionals were more concerned than others about the risk of infection; suggesting that health professionals are not as knowledgeable about the low risk of contracting infection as one may have thought.

Qualitative data collected revealed some concerns about providing first aid. Key findings included that first aid interveners experienced a lack of follow-up and/or opportunity to debrief about their experience of providing first aid. Additionally, first aiders noted a sense of helplessness when providing first aid, especially at a serious RTA. The inability for emergency crews and police to provide details about the outcomes of a RTA to first aiders left a sense of worry and ongoing emotional turmoil regarding the experience.

Interestingly, first aiders also felt disregarded by emergency crews. Some argued that the first aid attempts by bystanders were ignored and not acknowledged; leaving the first aider feeling angry and disillusioned. First aiders also commented on the role of the first aider, and how some people may assert themselves as experts at a RTA.

### **Impact on driver behaviour**

This project builds on precursor studies conducted in Western Australia (Oxer 1999) and Sweden (Larsson, Martensson & Alexanderson 2002). In particular, Larsson, Martensson & Alexanderson (2002) were interested in looking at behaviour modification as the result of first aid training. They asked the following question in their survey:

**How well do you agree with the following statement: As a result of first-aid training, I take fewer risks in traffic?** *Completely, partly, very little, not at all, no opinion.*

Larsson, Martensson & Alexanderson et al. (2002) showed that 41% of respondents agreed totally or partially with this statement. They also noted that respondents on the 18-44 years of age group reported no change in their behaviour, whereas those in the 45-74 years of age group had done so. The findings also indicated that females were unsure of whether or not they had become more cautious, whereas males stated their risk-taking behaviour had been affected very little or not at all (Larsson, Martensson & Alexanderson 2002). Lastly the findings showed that those with only a compulsory education said they had become less inclined to take risks in traffic.

This study also examined risk taking behaviour in relation to first aid training and similarly the results are not helpful in providing a clear understanding of risk taking behaviour. The findings show that participants are equally divided in their opinion about the effect of first aid training on their driving behaviour. A more sophisticated study will need to be developed to assess the potential impact of first aid training on risk taking behaviour.

## Conclusions

A significant proportion of Australian road users have received training in first aid at some time in their lives. However, confidence and skill in applying first aid declines over time and only 29% of the population have a current first aid qualification (Kendrick & Marsh 1998). Level of confidence and fear of making a mistake are important in determining whether an individual will choose to intervene at the scene of a RTA (Jelinek et al. 2001). Consequently it is important that a higher proportion of road users are encouraged to undertake first aid training and receive exposure to first aid knowledge and techniques regularly throughout their driving career. Notably the majority of people with a first aid qualification undertook their training to assist family and friends or as a prerequisite for work. There is potential for these positive motivating factors to be extended through public education campaigns and through industry links in order that people can be encouraged to support their community by becoming first aid qualified. In addition, because many first aiders have gained their qualification as a component of other education it may be possible to increase the proportion of education or training programs, including through school education, that have first aid content.

Benefits of first aid training include an increased likelihood of owning a pocket mask, owning a first aid kit and, providing first aid at the scene of a RTA. It appears that people who have been exposed to first aid training have a greater level of awareness of the equipment that may be required and are more likely to become involved in providing care. The adequacy of first aid kit contents should be reviewed to assess their suitability for use in providing first aid at RTAs. There is some concern that commercially available kits may be designed for home use and for minor injury care rather than providing the materials, for example bulky dressings, that may be required for treating more substantial injuries.

In addition, the results of this study suggest that life experience associated with older age groups (25 years and above) underpins greater confidence and an increased likelihood of intervening. For example older participants were more likely to engage in activities such as ensuring scene safety and providing reassurance to the injured.

Of the skills utilised by people who intervene at a RTA, ensuring safety at the scene is the most common intervention. The true impact of this activity by bystanders is difficult to measure. However it is reasonable to conclude that the extent of mortality and morbidity associated with RTA is reduced by simple measures aimed at ensuring the safety of the scene and casualties while awaiting expert assistance. Additionally, because first aid treatment is required at only 50% of RTAs, ensuring scene safety will remain an important and practical intervention in most cases.

Basic life support interventions, including changing posture, opening an airway and controlling bleeding were important patient interventions that have the potential to save lives. These three forms of intervention are easily taught and applied by lay people, have a significant impact on survival and appear to be relatively commonly used interventions at RTAs. As Ashour et al (2007) found, a possible 4.5% of patients might have survived a traumatic RTA if the simple measures of preventing airway obstruction and controlling blood loss were ensured. In this study 14.7% of first aid interventions included changing posture, 5.3% included opening an airway and 12.9% controlled bleeding. This finding is supported by previous work (Hussain & Redmond 1994; Khangure 1998; Oxe 1999). Given that many RTAs are at low speed and involve only minor injury these rates are surprisingly high and highlight the potential value of basic first aid training for drivers that covers these few simple techniques.

A significant proportion of the first aid care provided at the scene of RTA includes providing comfort and reassurance. These interventions were identified by participants as a valuable form of first aid care. While comfort and reassurance was not listed as a category within the questionnaire, participants commonly described this activity when asked about other types of treatment applied at a RTA. The relative importance of this activity is arguable though it may be concluded that reassurance plays a role in reducing the shock associated with injury, in improving patient vital signs and in scene management by assisting emergency services to care for the majority of victims who may only have minor injuries. The potential role of this aspect of first aid at RTAs is worthy of further study.

Three key concerns about providing first aid listed by participants were, fear of making a mistake, concern for safety and concern about litigation. These factors have been identified previously and continue to be a cause for concern among those who volunteer to intervene at RTAs (Eisenburger & Safar 1999; Jelinek et al. 2001; Mabbott 2001). First aid training for road users will need to address these issues and provide clear guidance about the legal protection applicable to members of the public intervening to provide care and strategies to ensure their safety. In addition, more flexible and accessible strategies for maintaining first aid knowledge are required. A further useful strategy may be the development of public information campaigns that help to alleviate these fears and encourage people to intervene.

Providing first aid in these emergency situations can be overwhelming and traumatic. Encouraging more people to learn basic first aid and to intervene will rely to some extent on the development of improved strategies to provide support to those who have given first aid care at a RTA. This has been supported by other studies (Axelsson et al. 1996) where it is noted that debriefing is crucial. Better post intervention care for lay rescuers enables them to repeat a past endeavour

and encourages others to learn and perform basic life support (Axelsson et al. 1998). Emergency services and community health care agencies should collaborate to ensure that bystanders are provided with appropriate information and support. This task is often considered difficult and relegated as a lower priority. However it seems that many people who intervene at RTAs would benefit from this support and that this may positively influence their peers.

This research highlights key issues in the delivery of first aid at RTAs. Given that emergency ambulance care is on average available 7-13 minutes after the initial call for assistance is received, the role and potential impact of immediate first aid care is significant. It is argued that mortality and morbidity associated with RTA can be improved by strategies that increase the likelihood that a first aid trained person will be in attendance and that provide more appropriate support and information to those who intervene at RTAs in the crucial minutes before an ambulance arrives.



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APPENDIX A – SURVEY PROFORMA

**First aid and harm minimisation for victims of road trauma – Survey Proforma**

<b>TELL US A BIT ABOUT YOURSELF</b>						
1. Gender	Male <input type="checkbox"/>	Female <input type="checkbox"/>	2. Do you have any health care qualifications?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
3. Age:	17- 24 <input type="checkbox"/>	25- 34 <input type="checkbox"/>	35- 44 <input type="checkbox"/>	45- 54 <input type="checkbox"/>	55- 64 <input type="checkbox"/>	65+ <input type="checkbox"/>
4. What is your highest level of education?						
Primary School <input type="checkbox"/>	High School <input type="checkbox"/>	Apprenticeship <input type="checkbox"/>	Other Tech College/ TAFE <input type="checkbox"/>	University (Graduate) <input type="checkbox"/>	University (Post-Graduate) <input type="checkbox"/>	
<b>FIRST AID BACKGROUND</b>						
5. Have you <b>ever</b> had any first aid training?			Yes <input type="checkbox"/>	No <input type="checkbox"/>	If your answer is "NO", please go to Question 10	
6. Have you had any first aid training in the last <b>three years</b> ?			Yes <input type="checkbox"/>	No <input type="checkbox"/>		
7. Who conducted your <u>most recent</u> first-aid course?			St John <input type="checkbox"/>	Red Cross <input type="checkbox"/>	Parasol EMT <input type="checkbox"/>	CIT <input type="checkbox"/>
			Other <input type="checkbox"/>	(please state): _____		
8. Why did you do a first aid course? (Circle all that apply)						
<input type="checkbox"/> To assist my family and friends if they needed first aid						
<input type="checkbox"/> I did it so I could provide first aid for my (or my family member's) sporting activity						
<input type="checkbox"/> I wanted the first aid allowance at work						
<input type="checkbox"/> My work asked/ told me to do a course						
<input type="checkbox"/> Another Reason (please state:) _____						
9. Who paid for your first aid course						
<input type="checkbox"/> Work						
<input type="checkbox"/> Myself						
<input type="checkbox"/> Community Sponsor						
<input type="checkbox"/> Sporting Club						
<input type="checkbox"/> Another group: Please state: _____						
<b>DRIVERS LICENSE AND MOTOR VEHICLE INFORMATION</b>						
10. Where is your current Drivers Licence from?						
I don't have a Drivers License <input type="checkbox"/>	ACT <input type="checkbox"/>	NSW <input type="checkbox"/>	NT <input type="checkbox"/>	QLD <input type="checkbox"/>	SA <input type="checkbox"/>	TAS <input type="checkbox"/>
	VIC <input type="checkbox"/>	WA <input type="checkbox"/>				
11. Do you have a car?			Yes <input type="checkbox"/>	No <input type="checkbox"/>	12. If you do have a car, do you have a first aid kit in your car?	
					Yes <input type="checkbox"/>	No <input type="checkbox"/>
13. Do you have a "pocket mask"?			Yes <input type="checkbox"/>	No <input type="checkbox"/>		
14. Have you ever been at the scene of a car accident in the last three years?			Yes <input type="checkbox"/>	No <input type="checkbox"/>	If your answer is "NO", please go to Question 22.	
15. Have you used first aid at the scene of a car accident in the last three years?			Yes <input type="checkbox"/>	No <input type="checkbox"/>	(Please go to Question 16 on next page)	
					(Please go to Question 21 on the bottom of the next page)	

PLEASE TURN THE PAGE









### **Project Title: First Aid at Traffic Accidents**

The NRMA has commissioned a study to be undertaken by the Research Centre for Nursing and Midwifery Practice (RCNMP) called “**First Aid Training and Harm Minimisation for Victims of Road Trauma: A Population Study**”. It examines the relationship between first aid and bystander activity at the scene of car accidents. The aim of this project is to acquire knowledge about who has first aid training in the ACT and who would be willing to use these skills at the scene of a car accident.

### **YOUR INVOLVEMENT**

Your decision to participate in this survey is *completely voluntary* and *anonymous*. All ACT government staff are being asked to participate in the study and we hope you will take this opportunity to be involved. The ACT Chief Minister’s Department has approved the call for ACT government staff participation in the study.

We ask that you take a few minutes of your time to complete the survey. It is expected the survey will take about 5 minutes to complete.

Submission of the survey will be deemed to be consent for participation in the study

### **CONFIDENTIALITY and ETHICS**

The researchers are committed to maintaining your anonymity at all times, and are required to do so by national ethical research standards. No identifying information is collected through the survey. Your participation will not be disclosed to your ACT government colleagues or management. All data that is collected is kept in a secure location. This study is funded by the NRMA- ACT Road Safety Trust and has been approved by the ACT Health Human Research Ethics Committee and the University of Canberra Committee on Ethics for Human Research. A statement from the University of Canberra’s Ethics committee may be found on the reverse of this page.

### **CONTACT**

Should you wish to discuss the study or ask any questions about it at any time, please contact the Chief Investigator, Professor Paul Arbon, on 08 8201 3972, or email on [paul.arbon@flinders.edu.au](mailto:paul.arbon@flinders.edu.au).

Should you have any problems or queries about the way in which the study was conducted, and you do not feel comfortable contacting the research staff, you may contact the ACT Health Human Research Ethics Committee Secretary on Second Floor, North Building, London Circuit, Canberra City, ACT 2601, or on phone number 02 6205 0846.

Thank you for your interest in this study.

## APPENDIX B – INFORMATION SHEETS FOR PARTICIPANTS

UNIVERSITY OF CANBERRA  
COMMITTEE FOR ETHICS IN HUMAN RESEARCH

*Document for people who are participants in a research project*

### **CONTACT FOR INFORMATION ON THE PROJECT AND INDEPENDENT COMPLAINTS PROCEDURE**



The following has been reviewed and approved by the Committee for Ethics in Human Research:

Project Title: *First Aid Training and harm Minimisation of victims of road trauma: A Population Study.*

Project Number: 05/76

Principal Researcher: **Professor Paul Arbon**

1. As a participant or potential participant in research, you will have received written information about the research project. If you have questions or problems which are not answered in the information you have been given, you should contact the researcher (or, if the researcher is a student) the research supervisor. For this project, the appropriate person is:

Name: **Professor Paul Arbon**

Contact Details: **School of Nursing and Midwifery,  
Flinders University, Adelaide, South Australia**

Phone: (08) 8201 3972

Email: paul.arbon@flinders.edu.au

2. If you wish to discuss with an independent person a complaint relating to

- conduct of the project, or
- your rights as a participant, or
- University policy on research involving human participants,

you should contact the **Secretary of the University Research Committee**

Telephone: (02) 6201 2466, Room 1D112, Office of Research and Research Degrees, University of Canberra, ACT, 2601

Providing research participants with this information is a requirement of the national health and Medical Research Council *National Statement on Ethical Conduct in Research Involving Humans*, which applies to all research with human participants conducted in Australia. Further information on University of Canberra research policy is available in *University of Canberra Guidelines for Responsible Practice in Research and Dealing with Problems of Research Misconduct* and the Committee for Ethics in Human Research *Human Ethics Manual*. These documents are available from the Research Office at the above address or on the University's website at:

<http://wasp.canberra.edu.au:80/secretariat/resprac.html> (Research Guidelines)

[http://wasp.canberra.edu.au:80/secretariat/ethics/human\\_ethics/](http://wasp.canberra.edu.au:80/secretariat/ethics/human_ethics/) (Human Ethics Manual)

Postal Address: University of Canberra ACT 2601 Australia Location: University Avenue, Bruce ACT

Telephone: +61 (0) 2 6201 5111 Facsimile: +61 (0) 2 6201 5999 World Wide Web: <http://www.canberra.edu.au>



## APPENDIX C – QUALITATIVE EXERTS

<p><b>22. Is there anything you would like to share about your first aid experiences in relation to a car accident? If yes, please write your comments below.</b></p>
<p>My first aid training was so long ago I do not feel it would be very useful in an emergency situation.</p>
<p>I once assisted removing a trapped and injured person from a burning car that had been involved in an accident, this was over 5 years ago, whilst I didn't know exactly what to do, and I knew that the injured person needed to be removed from the burning car as soon as possible.</p>
<p>Have never been in the above situations to administer First Aid, would like to attend a first aid course in the future to feel more capable in any of these situations.</p>
<p>Felt I could of done a more through check of the injured such as head to shoulders check for breaks. Concentrated on safety of myself &amp; bystanders, further incidents, and immediate shock treatment.</p>
<p>It can be difficult if there are a number of other people helping and you disagree with what they are trying to do - there may be a number of people trying to "assert" themselves as experts.</p>
<p>It made me realise that it would be a good idea to refresh my first aid training, which is now about 7-8 years ago</p>
<p>Very aware of what accidents can do - have had whiplash as a result of being rear-ended. Have also had friends who had major injuries from being in accidents (both car and motorbike). Some time spent with victims of road accidents may be useful in driver/rider education programs - not to discourage people, but to make them aware that they are in charge of what are potentially fairly lethal bits of machinery.</p>
<p>My friends and I were the first person on the scene of an accident about 10 years ago in the middle of WA outback. This was before mobile phones and about 50 KM from the nearest town. We had to free a trapped woman and take her and the driver to hospital. We were most concerned about the woman but it turned out that the man was most seriously hurt and we overlooked him a bit. First Aid Certificates really should be compulsory. I am slack and have yet to get one but will do so now.</p>
<p>I would feel my skills are too outdated to be useful now. I would also be concerned about the potential to be sued by a family member if I was unable to save someone, or they were left severely disabled, whether or not my intervention had contributed.</p>
<p>I haven't been doing a refresher course for over 15 years and I cannot remember much of it.</p>
<p>The victim was in shock and hostile. It was not an esteem building experience.</p>
<p>There was no one with severe injuries about from seatbelt bruising and some hyperventilation I did a quick head to toe assessment and gave reassurance until the ambulance arrived.</p>
<p>First aid training has given me the confidence to render assistance when necessary.</p>
<p>Total disregard by fire, police and ambulance officers to the assistance provided by witnesses before the arrival of the emergency staff.</p>
<p>There were others more experienced and qualified at the scene. Also, I feel traumatised by a motor vehicle accident that happened many years ago where there was a fatality.</p>
<p>I think short refresher courses should be completed more often, focusing on car accidents for example. In the heat of the moment it is easy to forget what you learn a year ago, but then again I don't think anything can prepare people for the trauma of a car accident, speaking from experience.</p>
<p>I like to think that I would stop and render assistance were it needed in the case of a road accident. While I am aware of some possible negative legal implications that might constrain what activity I should undertake, I think that when 'push came to shove' I would dive in and do what ever I felt was required at the time.</p>
<p>Before the first aid course, I would not look at the scene of a car accident. Now I check it out to make sure there is assistance for potentially injured people. I also believe I would be wary of being injured myself if I were at the scene of an accident - something I would not have considered had I not attended the course.</p>
<p>I appreciate the importance of first aid and would like to complete some form of training. As a father I often wonder what I would do if I was faced with a situation where my child required first aid. My limited knowledge would probably not be effective or useful.</p>
<p>Most people in an accident would be grateful for assistance however the risk of legal action against the first aider and other potential consequences for the helper, is always a concern.</p>
<p>I have assisted at a roadside accident several years ago when there was one dead person lying in the middle of the road and two others who were critically injured - one with an obvious broken neck. It was rather disturbing to find bystanders wanting to lift this man up into a car to get him to hospital more quickly than an ambulance could. Given my hospital experience in managing trauma several years ago, I was able to insist that they do not try and lift him. However, he died in the ambulance anyway (from multiple injuries). This brought home to me the importance of having as many people as possible understand more than just basic first aid. Thanks for doing this important work and good luck!!</p>

## APPENDIX C – QUALITATIVE EXERTS

The concern is who is liable if first aid is provided incorrectly - this concern may add to a public view of "bystander" mentality or avoidance of helping full stop.
I take fewer risks in driving because I have worked with people who are disabled due to a car accident.
Although I have not used my first aid training to assist a MVA, I was involved in a serious MVA myself earlier this year. Some of my colleagues came to the scene and although they could not administer any first aid as I was trapped upside down in the vehicle and inaccessible, one of them reached through the window and held my hand. This small act made a huge difference to me and really calmed me down until the ambulance arrived.
Been willing to upgrade my First Aid Skills but have not found time to do so yet. At the moment, my skills would be inadequate but general awareness is present (e.g. not moving victim, checking for signs of life, calling ambulance). First Aid Kit and Manual always ready in the car for others to use.
There is also a role for the "personal support" for the non-injured - helping to keep them calm and focused, not panicking.
I would try to administer first aid on the 'ABC' basis if presented with a situation. I believe I would also know how to administer CPR sufficiently to keep a victim alive if necessary.
The reason I did not give first aid was because other than me there were a whole lot of middle aged men who also came to see how the victim was, and they would not listen to me, and I did not have enough confidence in my ability to be assertive in that situation, especially as the victim didn't seem too badly hurt. None of them had thought to call an ambulance so I did that. None of the men seemed to know any first aid.
After having completed my first aid certificate as a 9 year old, I have rarely been required to utilise my skills and have only come across a couple of minor accidents or one's where ambulance support has already arrived.
I didn't need direct first aid just general stuff like asking how they feel if their in pain things like that but there was no one injured so that was that
It's more difficult to assess ones facilities after an accident than one would first assume. With this in mind perhaps it is an idea to provide a self-first-aid for individuals who have been injured alone and are able to undergo first aid steps.
Ability to call for help (ambulance), mobile phone, should be included in the first aid kit. Because I would expect an ambulance to arrive at most accidents first aid would be limited to maintaining clear airway and psychological reassurance. I.e. Help is on the way. Doing anything more would really depend on the circumstances. i.e. danger of further risk to victim e.g. fire
I think that all drivers with a current license should have at least CPR training.
The car accidents I have witnessed have all been rear-enders, usually at roundabouts or intersections. First aid does not appear to be required as the passengers hop out and walk around.
You just need to be prepared at all times to help to the best of your ability.
Someone else was attending to the injured driver. I only have a very basic knowledge of first aid. I always carry a blanket in my car and focused on keeping the non-injured passenger calm and warm to minimise shock.
I believe it would be beneficial to have first aid certificates as a qualification needed to obtain a drivers licence.
I was first on the scene of an accident many years ago where one of the passengers had been thrown from the car and the car then rolled onto the passenger by the time the car was able to be moved more people had arrived and as someone else seemed to know what to do I just watched to make sure they where not doing something stupid and left it to them.
I have been at an accident scene before and the driver was wedged into the car. I knew from my first aid training not to attempt to move him. In any case he appeared to have died on impact so the first aid training wouldn't have helped.
When I arrived at the scene there were around 10 bystanders all doing nothing. The driver was pinned in the car and the passenger had open fractures and a severe cut to her head. After around 20 mins the fire brigade arrived and then 10 mins after that the ambulance. They worked really well and complimented me on my first aid which I appreciated. I went into shock about 30 mins after that once I had time to think about what I had seen. I am constantly amazed at the recklessness of drivers as well as the number of people willing to stand around and watch the aftermath of an accident but not offer to assist.
Common sense prevails at all times.
I would need a refresher course as it would be 20 yrs since I did my training. However I would not hesitate to assist at a road accident and could assist with general first aid but certainly do not have knowledge beyond that. Most of all if the victim is conscious just talking to them to keep them calm is important until an ambulance arrived is better than nothing.
Driver Education on Speed and the effects on the body. With my partner being an ICU nurse, what is not reported is the long term effects of spinal or brain trauma. These injuries have long term repercussions not only for the victim and family but also the community as a whole. Bring back the graphic road education movie Red Asphalt.

## APPENDIX C – QUALITATIVE EXERTS

In the past, people have seemed to observe at accidents, but appeared unwilling to get involved unless forced to.
My last First Aid training greater than three years previously - hence I'm "out-of-date". Fortunately, competent care/first aid was already being administered at the site. A First Aid kit in all cars should be mandatory. I need to undertake refresher training and restore currency & competency for administering first aid. It would help if first aid training was more readily available, and able to accommodate people with extended working hours as well as those in rural / remote communities. First Aid training is essential - should be mandatory at schools and all other training establishments. Current OH&S legislation seems more focussed on penalising rather than positive promotion of adequate & comprehensive first aid training.
I have not been the first person at the scene of a car accident & the ones I have passed have already had police in attendance. I have used first aid when my daughter fell off a horse, she was suffering from shock & bruising so I settled her down & took her to hospital.
Keep a cool head - Remember what you have been instructed to do in that type of situation.
I think that having trained in first aid and being refreshed every year was valuable because I knew the steps to take and what to do to help the injured people. There were A LOT of bystanders/ onlookers not doing very much other than looking. Probably because they didn't know what to do!!
Someone else was provided the required First Aid at the scene prior to my arrival.
The associated shock and unexpected environment that people don't know whether to rush or to hang about; what is urgent and what is not.
As I was a pedestrian at the time I did not have gloves or a mask if I had to use them. Other kids were frightened by the accident and traffic was stalled at the crossing. Difficult to have people perform task like redirect traffic when they were concerned for the child, and feeling under pressure on the road. I was involved in a trauma MVA and thank god for the people who offered assistance. I know three of them developed PTSD after the incident. All of them were very frightened when I asked them to do something for me (both my arms were broken) like cut my seatbelt away from my neck, and hold my arm up that was hanging out the broken window. None of them knew first aid but got out of their cars as the accident was sprawled across the highway obstructing their passage.
More people should have first aid training, so they do not become a hindrance rather than a help
As a bike rider we don't carry first aid kits when travelling other than a water bottle, hankie and a mobile phone. When ever I have been at a traffic accident it has been important that the traffic management be undertaken to protect the accident and the helpers. Naturally this is handed to the police as soon as they arrive on site
My first aid training was more than 5 years ago and I would not feel confident of giving assistance at a car accident scene
Always concerned that I might be sued if something goes wrong with the application of first aid. I work in a humanities area and people do come first but the risk of litigations is always there. I have come across trained professionals who have stated that they would walk away from a scene of an accident rather than take the risk of litigation. They said that they believed their risk as a professional was higher than for someone who was untrained. I believe there is something seriously not right here.
I was the first on the scene some 20 years ago when a motor scooter rider ran into the back of a trailer. The rider broke both legs and I held one of his legs while reassuring him all the time that he would be OK. All I could remember from my first aid training was to reassure the patient. Holding his leg seemed to be reassuring for him also. It is some 12 years since I did my first aid course (I did a couple of refreshers) and I feel I must go again as knowing you have some knowledge is reassuring. I feel some of what I learnt as 'stuck' like clear the airway and put pressure on a severe cut but as time goes by and you do not 'practice' what you have learnt (which is good) I feel less confident about CPR and being able to feel for a pulse.
I do not have any first aid experiences in relation to a car accident but I would like to say that if I did have first aid training and was confident I would assist at an accident in whatever way I could. Maybe first aid training should be encouraged for all car drivers as the training and knowledge gained would also be of benefit in the home as it may save more lives or reduce the injury.
I arrived on the scene after it had happened and there were several people helping. A passenger in the rear seat had a very deep wound to the temple area and she had been removed from the car. My concern was that she should have been left in the vehicle as there was no danger and she may have had spinal injuries. There was also another person from the vehicle who was wandering around quite distressed, who should have been looked after as well as the injured parties.
I am overdue for refresher and would be nervous about attending an accident but I would do my best and would stop.
I held an advanced first aid certificate for over 15 years. I think every one who drives should understand the power of a car, how it works and the consequences of misuse and mistreatment of the car. Every one who learns to drive should complete and pass a first aid training course and a basic car maintenance course to give them the idea that driving a car is not just bit of fun or something to get you from A to B but a serious responsibility.

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<p>Training has made me more aware of the need for first aid training, and more confident should the need arise for me to use it. I have not yet been in a situation that required it.</p>
<p>I have completed two first aid training courses and I'm not sure I would feel confident in a real emergency such as a car accident.</p>
<p>I believe having some first aid knowledge to be able to assist at a scene of an accident is far more rewarding than standing by not knowing what to do.</p>
<p>I am very aware that a significant number of healthcare professionals have concerns regarding the legal implications of assisting at the scene of an accident. I am however keen to see First Aid Courses relevant to assisting at an accident or anywhere outside of the healthcare setting. Would be good to see promotion of such courses to the public with a focus on the need to update regularly.</p>
<p>I would be concerned these days about treating an injured person who was bleeding. I would size up their appearance and type of car in evaluating the possible risk to myself. I would leave an accident site if a person was behaving violently and offer no assistance. If a single vehicle accident with a female occupant and I was travelling alone, unless in immediate risk, I would not offer assistance due to the risk of later complaint. It has become too common for women to try suing individuals on the grounds of sexual assault. A few months ago I spotted a young girl on the ground at a bus stop, appeared to be distressed - reported to Police but did not even stop. It is sad indictment on today's society that I didn't even stop to check, being more concerned for my own safety and leaving it up to the Police who may have taken some time to assist. When I reported the situation at the Police Station Desk, 3 others behind me were also there for the same reason!</p>
<p>What exposure is there to litigation in the event of not performing correct first aid at the scene of a car accident?</p>
<p>If I was "on the scene" before the paramedics, I would be prepared to do what I could to assist. Once the professionals arrive, there's no need for us "semi-qualified amateurs" to get in their way.</p>
<p>My driving attitudes are a reflection of my personality, experiences and risk analysis. Having first aid training does little to change risk analysis behaviours.</p>
<p>Sometimes Emergency Services response times are quite lengthy. Situations can change in that time and these need to be monitored and people who know what they are doing should take control and manage the situation until the qualified help arrives.</p>
<p>Providing the first aider is acting within the bounds of the training they have received, no legal risks should be bought into consideration. I believe that all new drivers should be given at least a one day course in CPR and basic first aid to assist them (their passengers or others) in the event of an emergency. I find that most people lack some self confidence in applying first aid as they do not have the practice in using their skills often enough. If they were to be part of a mentor program working with people perhaps in workplaces, sporting events or other similar avenues, then first aid would be more widely utilised rather than a "have to" for work or school.</p>
<p>I would be interested in having first aid training</p>
<p>The accident scene I attended was minor with victims suffering soft tissue injuries to neck area.</p>
<p>I have assisted at a number of vehicle incidents in my lifetime - most of those I found that the training "kicks in" automatically.</p>
<p>I am reluctant to have blood contact and should keep rubber gloves and face mask in my car; as my first aid certificate has lapsed I need to renew my training. My son was recently first on the scene, and had the same uneasiness, particularly when finding the victims where just out of jail and involved in drug trade...he was concerned for his own safety re blood related transmissions.</p>
<p>I need to do a refresher first aid course because I'm so out of date and would have no confidence about what to do in an accident.</p>
<p>I believe first aid training would improve my confidence in the event of being at the scene of a car accident - but at the same time I don't really want the responsibility. Not using a skill regularly increases the likelihood of forgetting and of losing confidence with ability. I also am aware of the need to have a fire extinguisher and first aid kit in my car but have not found the motivation to get one - probably because I have not been exposed to a serious motor vehicle accident. Addressing all of these issues for the general public would be beneficial</p>
<p>My 19 year old sister witnessed a car accident 2 months ago on Mugga Way. She has had a small amount of first aid training and stopped her car to assist when she saw a vehicle veer off the road. The female passenger was pregnant and in pain and her partner was trying to pull her out of the car. My sister told him to not move her until an ambulance came because she could have hurt her back or neck and moving her may cause her serious harm. My sister insisted they call an ambulance but the partner refused. (My sister said he [the driver] was quite intoxicated). My sister assessed the situation and even got into the car to remove a small puppy that was wedged under the passenger seat. An ambulance was eventually called by another witness. My sister left when the police arrived. She said that because of her training she felt quite confident in assisting and taking control of the situation, even though she was significantly younger than the victims. Hope this helps!</p>

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No. Fortunately I have not come across vehicle accidents that have required my assistance. Only animals that have required assistance after being hit my vehicles that have failed to stop and provide assistance.
I would be very apprehensive about rendering first aid at an accident scene, even though I would want to be of assistance.
When would you worry about whiplash?
Although I have not renewed my first aid certificate, I am teaching animal first aid as part of my job at CIT. I am confident that with that background and the training I received during the first aid certificate, that I would remember enough in order to provide first aid at the scene of an accident.
I witness a very severe RTA (fatality) I stopped and phoned 000 in the meantime several other bystanders stopped. It was on a freeway and I had stopped in a very dangerous spot and couldn't cross the road so once I seen help was there I continued on.
If any of the vehicles are older model vehicles there is a greater chance there will be worse injuries than if the vehicles are newer models.
I have thankfully never need to apply any first aid to people at a car accident. I think it is very important for all people to know first aid and to have a first aid kit in their car (if they have a car that is). Having completed this short survey, it has made me realise that I need to update my first aid skills and buy a first aid kit to have in my car at all times. Thankyou
I spoke with the victim and offered assurance, explained visible injuries but waited for medical assistance to arrive.
It's handy to know first aid to help when involved/witnessing an accident before the ambulance arrives.
Don't think I would have ability to help at a major car accident - minor would be ok.
If you have a first aid qualification and you assist at an accident. Are there legal implications?
Compulsory first aid training when you get your licence
There were other people at the scene assisting and so I called for an ambulance, secured the scene and asked anyone arriving at the scene to respect the privacy of the victim.
I forgot everything I was taught and on reflection put myself and other road users at risk.
Importance of: DRABC, reassuring injured people, crowd control, contacting emergency services, coordinating assistance from others present.
Despite my qualifications I still feel quite inadequate to assist appropriately at the scene of a car accident. Concerns are when to move patients and how.
Considering that almost three years ago to the date I had lost a nephew as a result of a car accident and the driver of the other car took off without assisting my dying nephew, I believe that it would be of paramount importance to provide First Aid tuition to a large chunk of the population. The lost of a loved does not just happen to other people, it also happens to you.
My first aid qualifications are not current - I currently look any other ways to assist at the scene if I feel I am needed - I am a trained counsellor
Having received FA training initially as a boy in the Scouts, I have maintained a continuing interest and commitment, and a great deal of practical experience. Over many years I have had extensive practical experience, including successfully using CPR and applying other relatively advanced skills in a range of serious trauma situations, some in remote areas. My experience with other First Aiders suggests that the single biggest problem with the actual application of the skills is one of confidence when faced with a real situation. I have personally witnessed some ludicrous mistakes made in the heat of the moment by over zealous/under prepared/under confident First Aiders. No easy solution but my work with groups in ensuring hands on experience in realistic simulated events can help.
I keep forgetting to buying a first aid kit for my car...it would be good if they were made available when you sit the course. There was no follow up for those of us who assisted at that particular fatal accident scene...we were left to keep on our way when the scene was cleared...I realised afterward that I was in shock and should have not been driving.
No person had first aid equipment, I went out and bought a kit after this experience. Had to use pressure to stop bleeding. Had no gloves. Person injured was Asian- I worried for a while about Hepatitis as I had a cut on my hand. Now make sure that I have disposable gloves in my first -aid kit. It also looked like the car might go on fire and no one had a fire extinguisher so we were a bit worried about the car going on fire-the driver was removed from the car and we treated him on the grass.
I have never had close contact with an MVA. I work with a doctor who will not attend to staff in an emergency at work because of the medico-legal issues. I can only imagine these would be multiplied if a person only trained in first aid were to give assistance that proved detrimental. There would have to be some kind of protection from litigation for people who offer assistance in good faith. I would be unwilling to assist if I was unsure of my capacity to be helpful for fear of making the situation worse.
Your survey has made me realise that my first aid training is out of date and I must do another one.

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<p>Not long after acquiring my first aid certificate, I attended my one and only vehicle accident. I was able to provide immediate assistance in stopping the bleeding from a head wound whilst awaiting the arrival of an ambulance. There was no danger to the patient or myself during this procedure. I was complimented on my assistance by the medical team upon their arrival.</p>
<p>SES training is excellent</p>
<p>What amazed was that no at the scene had any idea re what to do. They were happy directed e.g. apply pressure, stay with and talk to others in need, etc</p>
<p>Even though I have a first aid certificate, I would be extremely nervous and unsure whether I would be able to or remember to use it if needed, for example at a car accident and this does concern me.</p>
<p>The reinforcement about prioritising and managing potential spinal injuries in relation to other difficulties/injuries.</p>
<p>Remember ABC Airway, Breathing , Circulation</p>
<p>The reason I take fewer risks when driving is because of 2 car accidents I was involved in (as a passenger) in 1982 and 1983. In the first car accident I received no first aid at the scene. A passing motorist asked if I wanted him to call an ambulance but I was suffering from shock and couldn't make a decision. I still suffer a lot of pain from those injuries. At the 2nd car accident, on the other hand, an ambulance was called. I was unconscious. My injuries were much worse but I have recovered from them completely.</p>
<p>I did help at the scene of an accident on the Nullarbor Plains about 7 years ago. Three of us worked together. We treated a broken leg, covered abrasions to keep the flies away and treated for shock as best we could until the ambulance arrived about 2 hours later. We also cleaned up the road side.</p>
<p>My first aid training was over 20 years ago - as such, I would not feel qualified to stop and help at a car accident. I would, however, stop and try to assist if there was no-one else around. This survey has raised my awareness that perhaps I should do some first aid training and bring my knowledge up-to-date.</p>
<p>Many years ago I was first on the scene of a fatal car accident. While there was nothing I could do for that victim, once I realised how long the ambulance took to arrive I felt that I needed the direct knowledge to be able to administer first aid in such cases. Apart from the obvious skills gained - the confidence of being able to act/organise is extremely valuable in emergency situations</p>
<p>I have had the experience that when there are multiple people involved in the accident and multiple people stop to assist, those with first aid training who want to assist when others have not done the correct thing, and sometimes it is the family members of the accident victim, will not allow you to assist. Which is upsetting for the first aider.</p>
<p>I would not to need to use first aid at the scene of a car accident</p>
<p>I have done a few first aid courses over years, but I have never seen/been involved in a car accident. I do not know what I would do if confronted with a car accident, by way of first aid assistance.</p>
<p>Unsure if all people trained in basic first aid would be in a position to assist at a car accident scene, particularly if there are complex injuries - e.g. moving a person. If people are unsure or not confident about procedure would it not be best to leave it to the more trained personnel.</p>
<p>A sense of powerlessness as the victim was trapped in the car and in pain but I couldn't really help other than reassure her until the fire brigade and ambos arrived, which seemed to take an eternity.</p>
<p>Have not been at the scene of any accidents. If I did assist I would be concerned about my safety &amp; legal implications.</p>
<p>There was no debriefing or support for the first aide assistant and my opinions and observations at the scene were not validated. It was an extremely traumatic experience and we were given no information from the police after we left the scene despite phoning and asking how the other victims were.</p>
<p>Before I received 1st aid qualifications, I assisted at an accident scene - a motorbike rider and pillion had been hit by a car and then the car drove off. These people were in the medium strip during busy traffic and no one was stopping. I passed, did a u-turn further up the road which took some time - still no one had stopped. The people were OK although the pillion had a suspected broken leg. I took her in my car to the hospital. I have now learnt in the course that this was the wrong thing to do and I should have called for an ambulance as I now have a duty of care and could be liable for litigation by using my own vehicle.</p>
<p>My main concerned was the fact that other car drivers drove slowly around the card accident "just to look" and then speed out of the scene. I was also upset to the ambos and firies for their lack of respect towards the "first aiders". After all, first aiders DO SAVE LIVES as well.</p>
<p>I have been told that if an accident victim suffers medical complications or health problems post the accident they can sue you.</p>
<p>Only that I feel quite overwhelmed after doing the 1st Aid Cert. It was wonderful, and I learned a lot, but there was so much information presented in a relatively short time that I really didn't feel that I had enough time to take it all in. We received a wonderful book - which I keep meaning to take time to read and study... but a series of handouts of the basics would probably have been more useful (or in addition to the book).</p>

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<p>I worked for st john volunteer for 19 years that gave me confidence, I have stopped at accidents many times to help.</p>
<p>Without my first aid training I may have caused untold damage to a victim of a car accident. Once the area was check for hazards and the police and ambulance had been called I approached the car with caution. The injured man was breathing although is head was so far back that he was choking on his own blood. It was frightening and you are told not to move a victim although there are always exceptions to the rule. We were able to secure the man in his seat and putting a support around his neck were able to raise the seat enough to change the direction of the blood flow so he was no longer drowning. Because he was trapped in the car we were unable to do much. It was a cold day so we covered him to keep his body temperature stable. His injuries were extensive so apart from the few things we did it was just a matter of keeping a check of his vital signs and wait till expert help arrived.</p>
<p>I have not been past a MVA in past few years to provide first aid assistance. If it is considered important/beneficial that Drivers provide First Aid assistance, could it be a requirement of obtaining a Motor Vehicle Licence?</p>
<p>Having a fresh knowledge and competency of First Aid would certainly be useful in the event of an accident but my careful driving has no bearing on whether I hold a F/A Certificate or not(mentioned in an earlier question).</p>
<p>First Aid training should be a part of getting your licence. First Aid should be a necessary part of workplace training. Cost of First Aid training should be tax deductible. First Aid training should be taught in all secondary schools</p>
<p>Maybe some basic first aid training could be incorporated into driving lessons</p>
<p>I have done three senior first aid courses, but my first aid certificate is no longer current. I did the course for myself, but hope never to have to draw on my training. In the event of an accident, I think I would only intervene if there was nobody else there to assist.</p>
<p>Following my initial training as a first aid officer I joined St Johns Ambulance as a volunteer. The further training that I received has helped me immensely to provide first aid assistance at any accident incident until such time as professional help arrives</p>
<p>It was raining and we were stopped at the traffic lights and a car crashed into the pole near us; the front half of the car was at the lights and the other half was further down the road with all 4 of the people, we ran over to them and they were all knocked out at first and I remember in on of the first aid courses a story of a person dieing all because her head had dropped forward and all that needed to be done was for someone to tilt her head back and she would have lived, looking at these people I noticed a lady with her head down and the seat belt appeared tight around her neck so my friend undone the belt and lifted her head back so that she could breathe freely, a doctor stopped to help until the ambulance came and the others appeared ok so we went as my daughter was in my car and she was crying so I hope every one was ok. But it's funny how you don't think that you have learnt any thing but thoughts come back when you need them.</p>
<p>I have attended several road accidents over the last 10 years in which I was required to treat the patient. I was required to control bleeding from various injuries and also performed basic assessment on the person to determine any other injuries they may have had. In these instances I was in attendance before the ambulance arrived and was able to provide a basic hand over the paramedics. I was a St John ambulance cadet and also a volunteer fire fighter in a road accident brigade. With having years of experience in both volunteers services I have had no hesitation in rendering assistance where required. Obviously the more training the more confident people are.</p>
<p>Sometimes the crowd members can create another risk at the scene of an accident. Many years ago I was providing first aid in a 2 car collision where 5 people were involved. The worst person was unconscious and needed to be moved to the ground to provide an airway. There was petrol on the road close by. When I looked up at one stage an onlooker had lit up a cigarette and was standing near the petrol, effectively putting everyone at risk. I tried to get another onlooker to make him move or put out the cigarette, but there was general immobility amongst the dense circle of onlookers and I could not leave the unconscious person. Having someone trained in a first aid situation to direct the spectators who gather is a vital part of first aid management, and I would like to see that aspect included more formally.</p>
<p>No responses for Q21 as enough people available with training and felt not necessary to contribute. However many of the questions above did go through my mind scene overwhelming, is someone better than me at first aid, will I get it right under this pressure and with an audience. I know the basics very well air way, bleeding etc but you just wonder if someone can do it better, with a crowd.</p>
<p>I think all Australians should have to take the First aid course at the age of 16 and every 4 years after that so the whole population would be more aware of what to do at a car accident.</p>
<p>Being at a scene of an accident is very overwhelming. Being a nurse does not necessarily give you first aid skills</p>
<p>Have attended a car accident where it was beneficial ++ to have the first aid kit available. The limited training I had for first aid wasn't of much use however.</p>
<p>Being present at the scene of a major RTA took me right out of my comfort zone and my car "first aid" kit was completely inadequate. Very thankful when the paramedics turned up with additional resources. Situation demanded skills far above those of a first aid provider.</p>

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<p>While my first aid training was technically out of date - it informed my decision to wait with the injured motor cyclist for the arrival of the ambulance. I was concerned about neck and back injuries and helped to keep the injured person calm and still while waiting for an ambulance. He was in a lot of pain and it was a relief when the ambulance arrived.</p>
<p>If I did have to use first aid, I would be really scared about making a mistake.</p>
<p>Sometimes just being there for the person that had had the accident is more comforting. If you can help with the first aid, sure go ahead and do it, but if not sure about, make sure to talk to the victim until paramedics arrive. My experience was myself having the accident, and someone actually stop and asked me if I need help, my kids and I weren't hurt, only damage to the car, but knowing that someone cared about stopping, is very reassuring.</p>
<p>I witnessed a head-on collision about 20 yrs ago. I did not know the procedure for 1st aid so my assistance was directed at traffic management. I'm confident now that I could assist and perhaps make a difference for any injured accident victims due to my 1st aid training.</p>
<p>I passed a car accident &amp; did not help because there were already many people assisting and it was a busy intersection and I would not have been able to stop without obstructing others. I have stopped &amp; helped at other instances such as cycle accidents where there was no one &amp; would stop at a car accident if there were not a hub of people already there.</p>
<p>I am thankful that the only car accidents that I have witnessed have been minor and that major First Aid treatment has not been necessary. I would hope that my very out of date training would be of assistance but yes, I guess legal issues would be more of a concern now than in previous years.</p>
<p>Just that all rational thoughts will likely go out the window when facing a real life situation. It'd be good to feel really confident about what I need to do and to not feel guilty if I didn't necessary do all that I could've to help.</p>
<p>If anything, I usually find that there are too many people around to deliver first aid, and most people like to take complete ownership of the victim/patient. They don't usually want to listen to anyone else.</p>
<p>I was involved in a serious high speed accident as a driver of a vehicle. I travelling alone and the first point of contact was with the male passenger from the other car, then a male passer-by, the third person to assist was a female, she was the first person to make physical contact with me and clam me down. I found the men have a harder time making contact with distressed accident victims than men.</p>
<p>It should be compulsory to have a basic first aid kit in vehicles</p>
<p>Language barrier - ambulance officers unable to communicate with victims who were NOT able to comprehend clearly. Health professionals assumed that the victim would ask 'sensible' questions.</p>
<p>The accident was minor and did not require anything other than making sure everyone was OK and ensuring that everyone was safely off the road.</p>
<p>As first person on the scene and with five individuals in various states of distress and trauma, one half through the windscreen and stuck. Squashing the passenger who was being crushed. One from the back seat wandering aimlessly with cuts and blood from head injury. Driver unconscious and person through the screen crying for help. It was overwhelming and difficult at first to know whom to look at. Thankfully others arrived. While I was talking and making an assessment. If anything came from it was that I could manage to some degree. I was very traumatized by it later which I hadn't considered. It won't prevent me in the future from assisting but certainly this needs to be discussed when giving the training and maybe some ideas possible contacts to assist helpers at scenes.</p>
<p>If I now have to do resuscitation I have forgotten the timing. I should have a note in the car.</p>
<p>Due to my work as a physiotherapist, I have had a current first aid certificate for about 9 years. I was 2nd on the scene to a major car accident 5 years ago. My first aid training assisted me greatly in knowing the best way to handle such a situation. When I arrived the man who was first on the scene was rolling around the head of someone in a car asking if they were okay. They were clearly not with blood streaming from their head. My first aid training enabled me to advise him not to move her head and in fact attempt to immobilise it. This potentially saved her from major damage. Further to that a second passenger was suffering from major shock, from my first aid training, instructing her to lie on the ground with feet up and a warm blanket over her, probably stopped her from passing out/ causing further problems at the scene. Thankyou for studying this important topic! I look forward to further first aid courses in the future.</p>
<p>About 15 years ago I was one of the first on the scene of a car accident in suburban Watson. It was late at night and dark and cold. The horn on the crashed car wouldn't stop and we couldn't figure out which parts of the people in the car belonged to whom. The fellow in the back seat was gurgling and having completed a first aid course a few weeks previous, I tried to open his airway but he drowned on his blood. I have always felt somewhat guilty for this incident but then also recognise that I was young, had little first aid experience and the passengers in the vehicle had little chance considering the impact, despite what assistance we could offer. The situation was highly traumatic and it has been a formative experience in my life. I would be reluctant to offer assistance at the scene of an emergency in the future given my experience, but then, am unsure what I would actually do until I was faced with the situation.</p>



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<p>I think everyone should undertake first aid training as part of receiving their driving licence. I'm sure that having to see graphic scenes of first aid being administered to car accident victims would make most people think about their driving skills. I would like to think that if I was involved in a car accident and my life depended on someone administering first aid that most people at the scene could help effectively.</p>
<p>I hope to do a first aid course through work soon.</p>
<p>11% of all fatal road accidents could have had better outcome if the victim's airway was open and patent. I.e. simple jaw lift/thrust could save many lives. Not enough emphasis seems to be included in training.</p>
<p>The accident had multiple fatalities. One thing that could be included in first aid courses is dealing with people in the accident that had relatives or friends who had died in that accident. Being one of the first to the accident, dealing with injuries and then with the survivors at the site, as medicinal help was delayed getting there, was hard.</p>
<p>It is a very long time since I did first aid training (probably over 10 years). I remember some of it. I think I could do CPR if I needed to. But I think I need retraining in first aid.</p>
<p>Not sure I'd really feel comfortable enough to give support at the scene.</p>
<p>I don't see what the link is between First Aid training and how carefully someone drives - you should drive carefully with or without First Aid training</p>
<p>Often people will mill around an accident, making it look like everything is being taken care of. But actually no one may be doing anything constructive, or they may have less first aid knowledge than yourself. Should check that things are OK before leaving scene. First aid training very helpful in giving confidence that one can be useful in emergency situations</p>
<p>I used to be (previous occupation) a station officer in the NSW Ambulance Service and was a lecturer/instructor for St John Ambulance over a number of years.</p>
<p>Yes, I honestly believe first aid should be compulsory. As soon as you are able to have a drivers licence, you should also obtain a first aid certificate. You should not be driving on the roads with out one. Young drivers should also have to do a driving course to assist with hazardous situations that may arise. I.e. Slippery wet roads and skidding how to correct yourself etc. I also believe that we would have less accidents if new drivers were only allowed one other person in the car for the first year of driving and this person should be a licensed driver. Too many people in a car is distracting for a new driver.</p>
<p>In the past being at the scene of a car accident, I felt generally unable to help, but with a better idea of First Aid I will be able to assist.</p>
<p>I have never been in a car accident-situation where my first aid training was required. My training does focus on children as I do child hood immunisations and it is for that purpose that I have training. I would feel most uncomfortable making decisions about moving people from a vehicle which may be in danger of catching fire etc. This is because I do not feel I have training sufficient to estimate the hazards and risk involved especially in relation to possible spinal injuries. I would feel comfortable doing CPR for most age groups and attempt haemostasis at open wound sites.</p>