



MONASH University

Accident Research Centre

DEVELOPMENT OF A MODEL RESOURCE FOR PARENTS AS SUPERVISORY DRIVERS

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Development of a model resource for parents as supervisory drivers

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Abstract:

The overall aim of this project is to develop a more comprehensive, practical and accessible resource for parents of novice drivers. Stage 1 of the project reviewed the evidence for a parental resource and identified the necessary issues to be addressed.

It is recommended that a model resource be developed that aims to bring about reductions in the risks of newly-licensed Probationary drivers. While the initial emphasis of this project was on developing a resource for parents of Learner drivers, there is a wide variety of resources currently available for that purpose. Improvements to that material are certainly possible, but there is a greater need for a resource at the transition to unsupervised driving, where the crash risks are extremely high. The model resource should aim to give parents a strategy and a framework for implementation of risk reduction measures, not merely information about the risks and ways of reducing them.

It is proposed that an adaptation of the Checkpoints program for local conditions would be the likely approach. The overall package is likely to include a combination of media. Methods of distribution of the resource will need to be assessed in a pilot stage that includes discussions with road safety agencies and other interested stakeholders. It is proposed that the following options be assessed: linking to a well-visited website, a connection to the licensing process and promotion and/or distribution in conjunction with an ongoing parent education program.

The parent resource should focus on the following issues: novice driver crash risks, the limited effectiveness of driver training programs, peer passenger risks, night-driving risks and vehicle recommendations. Other issues such as distraction, alcohol and other drugs and fatigue could also be covered in the parent resource.

The next steps are to develop and pilot a draft parent resource with the characteristics mentioned above. If implemented, then evaluation and revision would be later steps.

Key Words:

Young driver, driver licensing, driver education

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EXECUTIVE SUMMARY

The overall aim of this project is to develop a more comprehensive, practical and accessible resource for parents of novice drivers. The resource will be targeted at parents but will include content applicable to all supervisory drivers. Stage 1 of the project reviewed the evidence for a parental resource and identified the necessary issues to be addressed.

The resources currently available for parents appear to have two general goals:

1. To help parents to increase the amount and nature of supervised driving by Learner drivers
2. To help parents to reduce risks in unsupervised driving (mainly by new Probationary/Provisional drivers).

In general, Australian resources appear to focus on the first of these, and US resources on the second. Thus, there appears to be a gap in Australia in the area of parent resources to help reduce risks in unsupervised driving. Given that there are currently no peer passenger or night-time driving restrictions for Probationary drivers in any Australian jurisdiction, this is an area where parents may be able to implement risk reduction measures that have proven to be effective but have not yet received the necessary political support for implementation.

RECOMMENDATIONS

A model resource should be developed that aims to bring about reductions in the risks of newly-licensed Probationary drivers. While the initial emphasis of this project was on developing a resource for parents of Learner drivers, there is a wide variety of resources currently available for that purpose. Improvements to that material are certainly possible, but there is a greater need for a resource at the transition to unsupervised driving, where the crash risks are extremely high. The model resource should aim to give parents a strategy and a framework for implementation of risk reduction measures, not merely information about the risks and ways of reducing them.

It is recommended that the resource have three components:

- Informing parents of the risks associated with unsupervised driving and the actions that can be taken to reduce these risks
- Persuading parents to take actions to reduce these risks
- Providing a framework for managing exposure to high-risk driving scenarios.

It is proposed that an adaptation of the Checkpoints program for local conditions would be the likely approach. The overall package is likely to include a combination of media.

Methods of distribution of the resource will need to be assessed in a pilot stage, which includes discussions with road safety agencies and other interested stakeholders. It is proposed that the following options be assessed:

- Linking to a well-visited website (e.g. the VicRoads Lsite or the RACV website)
- A connection to the licensing process (e.g. promoted and/or available at VicRoads Registration and Licensing Offices)
- Promotion and/or distribution in conjunction with an ongoing parent education program (such as *Keys Please*).

The parent resource should focus on the following issues:

- Novice driver crash risks
- Limited effectiveness of driver training programs
- Peer passenger risks
- Night-driving risks
- Vehicle recommendations

Other issues such as distraction, alcohol and other drugs and fatigue could also be covered in the parent resource.

The next steps are to develop and pilot a draft parent resource with the characteristics mentioned above. If implemented, then evaluation and revision would be later steps in the quality improvement cycle.

1.0 INTRODUCTION

1.1 BACKGROUND

1.1.1 The young driver problem

As is common worldwide, young drivers are among the most vulnerable road users in Australian jurisdictions, particularly during their first month but also during the first 6-12 months of unsupervised driving (Mayhew, Simpson & Pak, 2003; McCartt, Shabanova & Leaf, 2003; Williams, 1999). While they represent only a minor proportion of licensed drivers, they are substantially more likely to be involved in fatal and injury crashes than experienced drivers. Indeed, in motorised countries worldwide, vehicle related crashes are the leading cause of death of young people.

On average, in 2000, *persons* aged 15-24 years comprised about 25 percent of all motor vehicle fatalities in all OECD countries, in Australia and in Victoria. The patterns for *drivers* killed in fatal crashes were similar. Young persons aged 15-24 years have much higher rates of fatal crash involvement per 100,000 population than any other age groups. In most OECD countries, including Australia, the fatality rates for 15-24 year olds are more than twice that for the nation's total.

In Western Australia (WA) during 2000, 17-24 year-olds represented 30% of driver fatalities and 30% of all hospitalised drivers, even though this age group comprised only 14% of licence holders at that time. Of crashes involving novice drivers, the young driver is at fault more than 80% of the time, with young drivers' crash rates up to six times those of more experienced drivers (Ryan, Legge & Rosman, 1998). Similarly, in Victoria, in 2003, 24% of drivers killed were aged between 18 and 25 years even though they comprised only 14% of all licensed drivers (TAC website, 2004). A similar pattern is evident for young drivers in other Australian states.

The high crash risk of young drivers is attributed to their youth and relative lack of experience; however, inexperience is by far the main contributing factor (Drummond & Yeo, 1992; Maycock, Lockwood & Lester, 1991; Mayhew, Simpson & des Groseilliers, 1999). US surveys have shown that self-reported per-mile crash rates drop by almost half over the first 250 miles of driving and by almost two-thirds over the first 500 miles (McCartt et al, 2003). Recently, McKnight and McKnight (2003) demonstrated that the great majority of young driver crashes are attributable to inexperience: errors in attention, visual search, speed relative to conditions, hazard recognition and emergency manoeuvres. Very few crashes could be attributed to intentional risk-taking behaviours, such as excessive speeds. Moreover, drivers who delay licensure to older ages are still subject to increased crash risk when first licensed to drive unsupervised, with this risk decreasing rapidly during the first 12 months (Mayhew et al, 1999; Maycock et al, 1991).

In addition to their lack of experience, young drivers tend to have insufficiently developed cognitive-perceptual skills and attitudinal-motivational orientations necessary for safe driving (Congdon & Cavallo 1999; Gregersen, 1996b; Gregersen & Bjurulf 1996; Katila, Keskinen & Hatakka, 1996; Keskinen, Hatakka, Katila & Laapotti, 1992; Mayhew & Simpson 2002; Siegrist, 1999). These higher-order, cognitive-perceptual skills include:

- information processing;
- hazard or risk perception;

- self-calibration (the ability to moderate task demands according to one's own performance capabilities);
- attentional control (the ability to prioritise attention);
- time sharing (the ability to share limited attention between multiple competing driving tasks); and
- situation awareness (internal representation of the current driving environment).

Rather than having safety-focused, attitudinal-motivational orientations, young drivers are often over-confident, over-estimating their driving ability and the performance of their vehicle, in addition to underestimating risk.

Moreover, learning to drive generally commences during adolescence; a developmental stage characterised by increasing independence from parents and an increasing need for acceptance among peers (Senserrick, 2003). This developmental stage is associated with a range of health and safety-related risk-taking behaviours, including smoking, binge drinking, experimental drug use, poor eating habits, extreme sports and unsafe sexual practices. Within this context, young drivers are found to undertake more intentional or unintentional risks, such as driving at high speeds or speeds inappropriate for the conditions, closely following the vehicle in front (short headways), and driving aggressively (e.g. Gregersen & Bjurulf, 1996). They also tend to drive under conditions of greater risk - at night and with peers in recreational circumstances - more often than experienced drivers (e.g. Williams, 2003).

1.1.2 Graduated licensing as an option for improving younger driver safety

The most effective general approach to reduce the crash involvement of young novice drivers appears to be implementation of a system of graduated licensing. Graduated licensing schemes aim to reduce novice drivers' crash involvement by reducing the impact of

- *inexperience*: it takes time for driving skills to be mastered and integrated;
- *immaturity*: characterised particularly by risk-taking and impulsiveness;
- *greater risk exposure*: young drivers are more likely to drive under high-risk conditions, including speeding, night driving and drink driving. (NHTSA, 2000)

Graduated licensing has been defined as 'a system for phasing in on-road driving, allowing beginners to get their initial experience under conditions that involve lower risk and introducing them in stages to more complex driving situations' (IIHS, 1999).

The approach has been likened to an apprenticeship system, usually entailing three stages of increasing difficulty:

- a Learner period, where all driving occurs under supervision. During this period, young drivers are encouraged to practice under the full range of driving conditions and as frequently as possible;

- an intermediate or Provisional licensing period which allows driving without supervision. As a consequence of the high crash involvement during this period, driving restrictions are imposed to reduce high-risk situations;
- full licensing, available when the first two stages have been completed.

Drivers are permitted to graduate from one stage to the next after mastery of specified skills is demonstrated through formal assessment.

Considerable variation is possible within this general framework. Rather than three main stages, there may be four or more, sometimes including school-based pre-licence training. There is also variation in regard to the conditions that govern each stage. Common restrictions include zero alcohol, speed restrictions, night-time curfews, passenger limitations and reduced tolerance of driving infringements.

The benefits of graduated licensing have been summarised thus:

- *expanding the learning process*: ‘graduated driver licensing lengthens the learning process. The longer the period of time that elapses between issuance of the first licence permit and the full, unrestricted licence, the more maturity and experience the novice driver will accumulate ...’;
- *reducing risk exposure*: ‘graduated driver licensing allows young drivers to gain much-needed driving experience in controlled lower-risk circumstances’;
- *improving driving proficiency*: ‘driving proficiency can be improved through measures that emphasise getting teens behind the wheel to practise. These components encourage the intermediate licensee to make safe driving decisions while driving to reduce risk’;
- *enhancing motivation for safe driving*: ‘by making relief from restrictions contingent upon a good driving record, graduated driver licensing provides incentive to drive safely’ (NHTSA, 2000).

1.1.3 The importance of driving experience in reducing crash risk

As mentioned previously, a lack of experience has been shown to be one of the largest contributory factors to novice drivers’ crash involvement (Drummond & Yeo, 1992; Maycock, Lockwood & Lester, 1991; Mayhew, Simpson & des Groseilliers, 1999). Research shows that crash involvement is highest for young drivers worldwide during the early stage of Provisional licensure; the period in which they are licensed to drive on their own. Currently, one of the most protective factors known to reduce risk once graduating to a Provisional licence is the attainment of many and varied hours of supervised driving practice as a Learner – over one hundred hours rather than tens of hours (Gregersen, 1997, 2001). Contrary to some earlier concerns, the Learner Period is the safest period in which to gain experience, as Learner drivers worldwide have the lowest crash risk of any driver age group (e.g., Gregersen, Nyberg & Berg, 2003).

Moreover, US research has shown that a high level of parental involvement increases the number of hours practice achieved and helps children to drive more safely when progressing to their *Ps* (Simons-Morton, Hartos & Beck, 2003; Waller, Olk & Shope, 2000). However, involvement for many parents does not extend much beyond supervising practice driving (Simons-Morton & Hartos, 2003).

1.1.4 The role of parenting in reducing young novice driver crash risk

Parents show widespread support for measures that restrict young novice driver behaviours in graduated driver licensing programs. This is important because parents play a major role in enforcing the conditions of graduated licensing. As parents are involved in their children's driving from the beginning, teaching them to drive and governing their access to vehicles, they are in a good position to set up expectations and guidelines for safe driving; supervise practice driving; and manage driving exposure by delaying licensure, restricting driving under dangerous conditions, and penalizing unsafe driving in a more direct way than can be done via graduated licensing systems (Simons-Morton & Hartos, 2003).

Research shows that there is a link between parenting style and young driver crash risk, especially parental monitoring and restrictions on driving. Low parental monitoring and control have been shown to be related to risky driving behaviours, traffic violations and motor vehicle crashes among young, novice drivers (e.g., Hartos et al, 2000). However, many parents are less involved with their children's driving than they could be despite the fact that they are in a prime position to influence their driving behaviours (Beck, Shattuck & Raleigh, 2001). This is likely to reflect several factors including a lack of knowledge of the higher risks associated with young novice drivers, feelings of ambivalence about novice driving, a tendency to under estimate risks associated with their own children and a lack of availability of clear guidelines for parents on managing young driver risks.

Given the link between parenting style and crash risk, it would seem that parental management of novice driving is an important target for intervention research for several reasons; driving is dangerous for young drivers, most young drivers are highly motivated to drive, many parents are ambivalent about their children starting to drive despite being concerned about their safety in general, and clear guidelines for parents on why and how to manage young driver risks are generally not available (Simons-Morton et al, 2002).

1.2 AIMS AND OBJECTIVES

The overall aim of this project is to develop a more comprehensive, practical and accessible resource for parents of novice drivers.

The resource will be targeted at parents but will include content applicable to all supervisory drivers. It is envisaged that the resource will be a voluntary package, rather than mandatory, for parents who want more information or want to do more to teach their child to drive safely.

1.3 DEFINITIONS

The terms novice and young driver have been used interchangeably to refer to beginning drivers who hold Learner and Provisional licences, irrespective of the jurisdictions in which they are licensed. Where the research relates specifically to beginning drivers who hold Learner or Provisional licences in the United States, the term 'teen' has often been used, as those who obtain their Provisional Licence at the minimum age will still be teenagers when they obtain a Full Licence. This is not the case in all Australian jurisdictions where novice drivers who obtain their licence at the minimum age will be teenagers for only part of the Provisional licensing period. Thus, the terms used in this report reflect these different definitions.

1.4 PROJECT METHODOLOGY

Two different types of searches were conducted for this project:

- A literature search to identify young driver crash risks and associated factors; crash involvement patterns, types of intervention methods (where the primary focus was on the role of parents) and any evaluations of these intervention methods.
- A search for parent and young driver (primarily Learner driver) resources available in Australia and internationally (mainly English-speaking).

1.4.1 Literature search

A general search using the key terms “parent resources help Learner drivers” and related terms was conducted of the following databases:

- Transportation Research Board
- Transportation Research Information Service
- Centre for Transportation Research
- US Department of Transport Library
- The Transport Web
- SAE Highway Vehicle Safety Database (includes conference papers, books, journals etc).
- Ovid – PsycLit
- Scirus (for scientific information).

1.4.2 Identification of available resources

A search of the websites of Government Licensing Departments in each state was conducted to identify currently used resources designed for parents as supervisory drivers. Direct contact was also made with each State’s Department to check for information that was still in development and or not publicly available or on their websites.

In addition, a search was made of the websites of the following organisations to identify any other relevant current resources:

- Australian Automobile Association (AAA) – www.aaa.asn.au
- RACQ
- NRMA
- Australasian College of Road Safety
- Centre for Automotive Safety Research SA (formerly RARU)
- Centre for Transport Safety – University of Queensland
- Institute of Transport Studies, University of Sydney
- CARRS-Q, Queensland
- National Highway Transport Safety Agency, USA
- American Automobile Association
- Insurance Institute for Highway Safety, USA

- Department for Transport Environment and the Regions, UK
- Driving Standards Agency, UK
- Land Transport Safety Authority, New Zealand
- Swedish National Road Administration

Discussions were also held with VicRoads and the Transport Accident Commission about their experience with providing Learner driver resources in Victoria and potential future developments.

1.5 REPORT STRUCTURE

Chapter 2 describes the literature that suggests that there is a need for a resource for parents. Evaluations of current resources are presented in Chapter 3. Chapter 4 outlines what parents need to know and Chapter 5 describes current resources. An analysis of gaps in current resources is presented in Chapter 6 and potential media are reviewed in Chapter 7. Recommendations for a model resource are made in Chapter 8.

2.0 WHY A RESOURCE FOR PARENTS?

Little local research has investigated the relationship between parenting and novice driver crash risk and the ways in which parental involvement of novice driving behaviours can be increased. Much of the available research is based on studies conducted in the United States by Bruce Simons-Morton and his colleagues. The minimum aged based requirements for obtaining a Provisional and full licence in the US are lower than those in Australia, and the minimum holding period for each type of licence is generally much shorter. In addition to differences in aged-based licensing requirements, there are also variations within and between the types of GDLS and their components in Australia and the United States (for example, type of restriction – night driving, passengers, length of restrictions, and penalties for violations). The nature of GDLS are also likely to influence and be influenced by the type of road safety culture common to the different jurisdictions. All of these factors are likely to influence the extent to which research on parental involvement in novice driving behaviour is applicable to different jurisdictions and should be borne in mind when generalizing US-based research to Australian circumstances.

2.1 PARENTS APPEAR TO BE EXPERIENCING DIFFICULTY IN PROVIDING SUFFICIENT PRACTICE FOR THEIR LEARNERS

As outlined in Chapter 1, the key to safer driving for young novice drivers is the attainment of many and varied hours of supervised driving practice during the Learner phase and driving under low-risk conditions during the Provisional stage. Research in Sweden found that gaining about 120 hours of supervised driving experience compared to about 40 hours resulted in 40% lower crash risk as a Provisional driver (Gregersen, 1997).

In NSW, WA and Tasmania, there is a minimum number of hours of supervised driving that must be completed as a Learner (but only 25 or 50 hours). In contrast, Victoria does not mandate minimum driving hours, but rather encourages Learners to gain 120 hours of driving experience and provides logbooks to complete on a voluntary basis (VicRoads, 2000). Catchpole and Stephenson (2001) conducted a survey of driving experience amongst Learners in Victoria. They found that for all ages and across all of Victoria, the average number of hours that Learners accumulate with a supervisor and professional driving instructor was 83 hours, with those acquiring their permit at 16 years of age reporting the most experience at 108 hours. Other Victorian research (Drummond Research, 2003; Harrison, 2003, 2004) confirms many Learners are gaining sub-optimal levels and variety of experience, with a Melbourne exposure survey finding young Learners represented only 0.1% of total travel on main roads (Drummond Research, 2003).

Discussions with parents confirmed the Learner period can be a stressful time for both Learners and supervisors and that parents largely based their approach to the task and their willingness to point out errors on likely reactions from the Learner (Harrison, 2003). More risky driving was in some cases avoided altogether, which can lead to these more difficult tasks being first encountered during the high risk early Provisional period. Many parents viewed the learning task as a separate one they needed to make time for, which while true initially, is less an issue once the Learner has established certain competencies.

At present, the nature and quality of parent supervision of practice driving during the Learner permit period and after licensure have not been well evaluated (Simons-Morton & Hartos, 2003).

2.2 PARENTS ARE THE PRIMARY ENFORCERS OF GDLS AND OTHER DRIVING RESTRICTIONS

As noted earlier, a system of graduated licensing is considered the most effective general approach to reduce the crash involvement of young novice drivers. Research in the US and elsewhere has shown that programs that delay the ages at permit and Provisional licence, increase the amount of supervised driving, and impose night time driving curfews result in reduced rates of risky driving behaviours, crashes, violations, and the overall amount of driving by young novice drivers (Doherty, Andrey & MacGregor, 1998; Preusser, 1998; Williams & Preusser, 1997; Ferguson, Leaf, Williams & Preusser, 1996; Preusser, Zador & Williams, 1993). These safety measures are the essence of GDLS, which are now viewed as the primary means by which young driver crash risks can be reduced.

However, despite the successful implementation and use of GDLS systems in many jurisdictions, young driver crash rates are still high and the systems are not always properly used and enforced. Parents show widespread support for measures that restrict driving by young persons in graduated driver licensing programs. This is important because parents, not police, are largely responsible for enforcing the conditions of graduated licensing. As parents are involved in their children's driving from the beginning, teaching them to drive and governing their access to vehicles, they are in a good position to set up expectations and guidelines for safe driving; supervise practice driving; and manage driving exposure by delaying licensure, restricting driving under dangerous conditions, and penalizing unsafe driving in a more direct way than can be done via graduated licensing systems. Moreover, parents are in a prime position to tailor restrictions according to the needs and performance of their children, which state-mandated policies cannot do. Consequently, parents can use authoritative practices to set up expectations and guidelines for safe driving that imitate or complement and extend graduated licensing systems.

2.3 PARENTAL MONITORING REDUCES CRASH RISK

While parents would seem to be in a prime position to reduce the risks associated with young drivers, there has been a surprising lack of research examining the relationship between parenting and young driver crash risk (Simons-Morton, Hartos & Leaf, 2002). Much of the research to date has been conducted by Simons-Morton and colleagues in the US and has shown that there is a link between young driver crash risk and parenting, especially parental monitoring and restrictions on driving.

Beck, Shattuck & Raleigh (2001) found that more frequent parental supervision and restricted access to a car were associated with less likelihood of young drivers speeding and more likelihood of their using seat belts when driving.

Hartos, Eitel, Haynie & Simons-Morton (2000) found that low parental monitoring and control were related to risky driving behaviours, traffic violations, and motor vehicle crashes among the teens. In fact, violations were about four times more likely and crashes were almost seven times more likely with lenient restrictions related to frequency of friends as passengers. Of the 300 adolescents studied, 261 completed follow up interviews about risky driving behaviours three months later. Results showed that risky driving at follow-up was related to risky driving at baseline, parental restrictions on driving and sensation seeking. In addition, 80% of teens consistently reported either high or low levels of risky driving at both time points. When compared to adolescents with low risky driving at both time points, adolescents with high risky driving at both time points were three times

more likely to report low parental monitoring and two times more likely to report low parental restrictions (from Hartos, Eitel & Simons-Morton, 2002).

Hartos, Eitel, Simons-Morton (2002) interviewed 275 teens who received their Learner's permit and one of their parents just after the Learners had obtained their permits. One year later, 161 of the teens had since obtained a Provisional licence and were re-interviewed. The results indicated that parents reported delaying teen licensure until teens were "ready" and they limited teen driving in terms of trip conditions (for example, getting permission, reporting return time) more so than driving in high risk conditions (for example, at night, with passengers). In addition, higher levels of teen risky driving behaviours were predicted by younger ages at licensure and fewer reported limits on driving in the first month.

2.4 PARENTS MODEL DRIVING BEHAVIOURS TO THEIR CHILDREN

Research has shown that teenage sons or daughters of parents who have crashed their cars are likely to have crashed also. A study conducted by the Insurance Institute for Highway Safety (IIHS, 1999) used state driver records in North Carolina, USA to match the crash and violation records of teens and their parents over a five-year period. Records of 155,000 young drivers (83,000 sons and 72,000 daughters) were checked against those of their parents. Young drivers aged between 18 and 21 whose parents had accumulated three or more violations over the previous five year period were 38% more likely to have violations on their own driving records than teenagers whose parents had no violations.

Crash records for parents were an even more accurate indicator of teen crashes. For each crash on the parent's record there was a seven percent increase in the likelihood of the teen having a crash.

Study results indicated that if the parent's driving record showed three crashes during the previous 5-year period, a teenage driver in the family had a 26% greater likelihood of having at least one crash on his or her driving record. Teenagers whose parents had three violations in the previous 5-year period had a 20% greater chance of having traffic violations on their record. The likelihood of teens having violations on their driving record was 13% greater for each additional violation on the parents' record. Each additional crash on the parent's record was associated with a 3% increase in the likelihood of the teen having a crash.

Recent New Zealand, Queensland and Finnish research has confirmed a theorised association to modelling poor behaviours (Bianchi & Summala, 2004; Gulliver & Begg, 2003; Sheehan et al, 2002). New Zealand males with experience as passengers of alcohol-impaired parents in mid-adolescence and of alcohol-impaired peers in late adolescence were more likely to report drink-driving themselves in early adulthood (Gulliver & Begg, 2003). In Queensland, parental modelling of drink driving and access to parents' cars for underage driving were strongly associated with heavier drinking; with drink-driving and delinquency jointly significant in predicting crashes (Sheehan et al, 2002). In Finland, the more dangerous driving behaviours occurred among parents the more they occurred by their children (Bianchi & Summala, 2004).

2.5 PARENTS DO NOT REGULATE YOUNG DRIVER RISKS WELL

Existing research shows that parental management practices are important influences on novice driving practices and safety when imposed; but unfortunately, parents do not perceive novice driving as highly risky and establish few restrictions on young drivers after licensure (Simons-Morton & Hartos, 2003). Indeed, involvement for many parents does not extend much beyond supervising practice driving (Simons-Morton & Hartos, 2003).

Research indicates that many parents are less involved with their children's driving than they could be despite the fact that they are in a prime position to influence their driving behaviours (Beck, Shattuck & Raleigh, 2001). Beck, Shattuck, Haynie et al (1999) found that for a majority of risky driving behaviour, parents were not aware that their children drove under the influence of alcohol, rode with other drinking drivers, were distracted by friends/passengers while driving, did not wear seat belts, drove aggressively, or ran stop signals/traffic lights. Other studies (Beck, 1990; Beck, Scaffa, Swift et al, 1995, cited in Beck, Hartos & Simons-Morton, 2002) also document a tendency of parents to underestimate risks related to novice driving and to attribute impaired driving to their children's friends rather than to their own children.

Beck, Shattuck & Raleigh (2001) and Hartos, Eitel, Haynie et al (2000) also found that a high number of teens do not report having driving rules or restrictions for high risk driving conditions, including driving at night and with teen passengers. Despite research linking teen passengers with crashes, Hartos et al (2000) found that adolescents reported that they were allowed to have "many" teens as passengers "most of the time". Likewise, Beck et al (2001) found that only a little more than half (55%) of the teen drivers in their survey reported any restrictions on the total number of passengers allowed in the car when they were driving, and only 25% reported being restricted to no teenage passengers.

Simons-Morton & Hartos (2003) asked a sample of 351 parents of teenagers holding Learner's permits about their perceptions of risk for a variety of teen driving behaviours. They found that parents perceived that the most dangerous driving conditions for novice drivers were of only moderate risk. While 92% of parents rated teen driving after using alcohol as extremely risky, the percentages of parents who reported other teen driving behaviours in this way was considerably lower; 61% for driving without a seatbelt, 48% for driving in bad weather, 42% for driving with friends on a weekend, 32% for driving at night in rain, and 28% for driving with two or more teenagers in the car.

Research suggests that parents do not always understand novice driving risks well, being aware of their increased risk in general, but not in relation to specific situations such as driving at night with peer passengers (Simons-Morton & Hartos, 2003). Simons-Morton and Hartos (2003) suggest that parents are often ambivalent about novice driving in that they are concerned about the risks, but are also interested in reducing the time they spend transporting their teenage children.

Thus, research to date shows that there is a link between novice driving risk and parenting, especially parental monitoring and restrictions on driving, and many newly licensed drivers report few driving restrictions especially under the most dangerous conditions, such as at night and with similar aged passengers.

Research shows a lack of agreement between parents' attitudes and behaviours in relation to restricting their children's driving. In hypothetical cases, parents are more likely to favour stronger restrictions and even support a punitive response to novice driver risk

(Haynie, Beck, Crump et al, 1999; Beck, Shattuck, Haynie et al, 1999, cited in Beck, Shattuck, Raleigh & Hartos, 2003). However, when the child has actually engaged in some type of risky behaviour, parents appear to be more lenient and inclined to use less restrictive and punitive measures.

2.6 CLEAR GUIDELINES FOR PARENTS ON MANAGING YOUNG DRIVER RISKS ARE LIMITED

There are limited opportunities to intervene with parents and their children regarding driving. Most driver education courses are devoted to teaching new drivers exclusively and do not include parents in the process. Moreover, Simons-Morton et al (2002) note that many programs and instructional materials have been developed to help parents teach adolescents to drive, but few educational materials have been developed to encourage and teach parents how to manage young driver risks.

Thus, parental management of novice driving is an important target for intervention research for several reasons; novice driving is dangerous, most young drivers are highly motivated to drive, many parents are ambivalent about their children starting to drive, and clear guidelines for parents on why and how to manage novice driving risk are generally not available (Simons-Morton et al, 2002).

3.0 INTERVENTIONS TO INCREASE PARENTAL MANAGEMENT OF YOUNG DRIVER BEHAVIOUR

It was noted in the previous sections that parental management of young driver behaviour is important in reducing young driver crash risk. While most parents impose modest restrictions on their children's driving (Preusser, Williams & Lund, 1985), in general parents allow their children greater driving privileges than is consistent with safety and most are not aware of the risks and how to regulate them effectively. In response to these problems, some research has focussed on the development of programs to increase parental involvement in minimising crash risks for young, novice drivers.

Numerous public agencies, private groups and insurance companies provide instructional materials for parents on how to teach and manage young drivers. These materials include informational brochures, videotapes, compact discs (CDs), and parent teen driving agreements that are designed to provide information about driving skills and attitudes. However, few of these have been evaluated, and none have been provided through a comprehensive, planned, educational program. Most driver education courses and special interest groups that target parents in the learning process involve only a small number of highly motivated parents who are keen to participate.

3.1 GRADUATED DRIVER LICENSING SYSTEMS AND PARENTAL INVOLVEMENT

Graduated Driver Licensing Systems (GDLS) are now viewed as the primary means by which young driver crash rates can be reduced (Simons-Morton, Hartos & Beck, 2003). However, GDLS are largely passive, and parents are the true enforcers of GDLS policies and any other restrictions on their childrens' driving because they can control access to the car. Viewed from this perspective, GDLS establish basic restrictions on young drivers and makes restriction normative, which might make it easier for parents to limit initial driving privileges (McCartt, Leaf, Farmer et al., 2001). Simply having a GDLS is not related to an increase in supervised driving or to specific increases in parental restrictions after young drivers obtain their licence to drive solo (P licence).

An indirect effect of, and selling point for GDL programs is that they may empower parents to place more restrictions on their newly licensed childrens' early driving.

In the US, high levels of parental involvement are encouraged to help facilitate such initiatives. For example, in Michigan, parents must provide written permission before Learners can enter the first level of licensing. They are considered in charge of supervising logbook entries and are notified of any violations of GDLS regulations until the driver turns 18 years of age (BSD Consultants, 2000). Waller, Olk and Shope (2000) found that parental involvement greatly increased the amount of supervised driving experience achieved. While 50 hours was mandated, on average, 75 hours were reported.

US research has found that parents show widespread support for measures that restrict young novice driving in graduated driver licensing programs (Beck, Hartos & Simons-Morton, 2002). This is important because parents are responsible for enforcing the conditions of graduated licensing. Although states may mandate restrictions, parents hold the keys to the car. As parents are involved in their children's driving from the beginning, teaching them to drive and governing their access to vehicles, they are in a good position to

set up expectations and guidelines for safe driving; supervise practice driving; and manage driving exposure by delaying licensure, restricting driving under dangerous conditions, and penalizing unsafe driving in a more direct way than can be done via graduated licensing systems. Moreover, parents are in a prime position to tailor restrictions according to the needs and performance of their children, which state-mandated policies cannot do. Consequently, parents can use authoritative practices to set up expectations and guidelines for safe driving that imitate or complement and extend GDLS.

3.1.1 Does policy affect parental behaviour?

Beck, Shattuck, Raleigh & Hartos (2003) used separate samples of teens before and after Maryland introduced a new GDLS to assess the impact of the change on levels of parental involvement in, and restriction on, teens' unsupervised driving. They found that teens in the new program reported significant increases in the frequency of parental driving instruction and supervised driving during the permit phase. There were no differences in amounts of instruction or supervised driving after Provisional licensure. Teens in the new program reported greater overall amounts of parental restriction on their driving; however few specific restrictions showed increases. Therefore, programs are needed for parents to help them set and enforce restrictions on the opportunities and conditions in which their teens can drive after the Learner permit stage.

The program showed evidence of improvements in some domains of parental involvement and restriction that appeared to be related to reduced teen driving risk, however there was little evidence that these reductions resulted from the formal parental driving instruction component of the new GDLS. GDLS should therefore, include educational components that instruct parents about how to regulate the driving of their newly licensed child.

Hartos, Simons-Morton, Beck & Leaf (2002) analysed differences between a GDL and non-GDL state and found that parents imposed stricter overall limits and limits on teens driving with passengers, on high-speed roads, and weekend night driving in GDL states.

GDLS may not be as effective at reducing novice driving risk as when it is combined with behavioural approaches (i.e., parent programs to guide novice driving involvement). Research is needed to determine the characteristics of both approaches and how they may be optimally combined.

3.1.2 Parents are the main enforcers of requirements

Mayhew (2000) concluded that enforcement by Police was not an important factor for GDLS to work in the US as compliance with restrictions was found to be mainly voluntary (self-enforcing) and parents/guardians had an important role in informally enforcing them. Parents, not Police, are considered the chief enforcers of US night-time driving and passenger restrictions (Williams, 1999). US Provisional drivers are generally younger than those in Australia (generally 16 years or even younger) and therefore many still live with their parents and drive their parents' vehicles. This allows parents to be more involved with monitoring their driving and enforcing the restrictions than for those drivers who are comparatively older and may have moved out of home and have access to their own vehicle.

Recent NSW research on underage drivers found that while the proportion of underage driving that resulted in a crash was small compared to total crashes in the population, one-third of the crashes resulted in injury to at least one occupant, the majority involving the

driver, with nearly 15% of injured passengers being adults (Lam, 2003a). The research suggested that parental involvement in reducing or prohibiting late-night outings was believed certain to reduce illegal joyriding and recommended that parents discourage experimental driving with their children and be actively involved in fostering road-safety-focused attitudes.

3.1.3 Extent of compliance with restrictions

Non-compliance with GDLS regulations has been found to be common among young novice drivers in Australia (Haworth et al., 1994), New Zealand and the United States.

Foss and Goodwin (2003) report that non-compliance with passenger restrictions is more common than for night-time driving restrictions. They argue that while parents are able to monitor use of a vehicle at night and their supervision requirements, it is far more difficult to monitor the carriage of passengers (when supervisors are not present) and this may contribute to the greater non-compliance.

Mayhew et al (1998) noted, however, that while the proportions of young drivers reporting non-compliance was relatively high in some instances, those that had violated the restrictions reported doing so only rarely. Notably, up to 72% of those violating some conditions (e.g. the night-time driving restriction) did so with their parents' permission. Conversely, parents indicated it was easy to enforce the restrictions.

More recent US research found that the majority (75%) of young drivers surveyed who were affected by GDLS restrictions in California reported that they were able to do the activities they wanted and that they had not been unduly affected by either night-time driving or peer passenger restrictions (Williams, Nelson & Leaf, 2002). In addition, the majority of parents (79%) strongly endorsed the program. A similar level of support was found for night-time driving restrictions in an earlier national survey in the US (Ferguson & Williams, 1996). Three out of four parents of 17 year olds reported support for the initiative.

3.1.4 Degree of parental support for GDLS restrictions

Parental support in the US has also been found to differ for specific restrictions. It has been reported that up to 90% of parents and over 70% of novices support night-time driving restrictions (Ferguson, Williams, Leaf & Preusser, 1999; NHTSA, 1998; Williams, Ferguson, Leaf & Preusser, 1998). In North Carolina, 43% of parents surveyed supported passenger restrictions and 74% night-time driving restrictions (Highway Safety Research Centre, 1996). In Florida, 60% of parents of young drivers supported passenger restrictions, 90% supported night-time driving restrictions, while 74% favoured a GDLS with both these restrictions (NHTSA, 2000).

In 1999, Pennsylvania introduced a mandatory minimum Learner period of six months, requiring 50 driving hours and limiting passengers, as well as extending an existing night-time driving restriction for Provisional drivers to commence one hour earlier at 11 pm through to 5 am (McKay & Coben, 2003). McKay and Coben (2003) found that, while parents were particularly supportive of the mandatory minimum Learner period, and found the passenger restriction acceptable, they expressed some inconvenience by the earlier night-time restriction, especially following school events, but favoured the restriction

overall¹. Young drivers affected by the restrictions were less favourable of the changes, believing the six-month Learner period was too long and the night-time restrictions too early, but generally accepted the passenger restriction. Of note, parents (correctly) identified the main cause of young drivers' inflated crash risk to be inexperience, while the young drivers believed immaturity and personality issues, especially wanting to "show off" were the primary factors. McKay and Coben suggested these differing perceptions influenced their reactions to the GDLS changes, indicating that education should be made an important feature of new legislation.

Research suggests that parents do not always understand novice driving risks well, being aware of their increased risk in general, but not in relation to specific situations such as driving at night with peer passengers (Simons-Morton & Hartos, 2003). Simons-Morton and Hartos (2003) suggest that parents are often ambivalent about novice driving, in that they are concerned about the risks but are also interested in reducing the time they spend transporting their children. They suggest this may contribute to their weaker support for passenger restrictions, which apply all day, than for restrictions at night only. Notably, it has been reported that in Michigan, where the GDLS requires a high level of parent involvement, parents describe how this experience has "brought home to them" (p.20, Waller, 2003) how much the young driver needs additional practice. Such involvement can help raise parents' understanding of the objectives of GDLS restrictions, which they may in turn feed back to their children. Preusser and Leaf (2003) also highlight positive parental awareness and parental restriction findings in jurisdictions that did not have a GDLS in place.

Therefore, education for parents (or guardians) of Learner and Provisional drivers is required in addition to education for the young drivers themselves in order to maximise the effectiveness of GDLS. Parents need to be educated about the importance of their role in supporting and maximising extensive driving experience and how they can facilitate compliance with (and enforce) GDLS restrictions (Steenbergen, Kidd, Pollak, McCoy, Pigman & Agent, 2001). A major role for driver education, instruction and training is to create a more realistic view by parents of their children's driving abilities and motives. Graduated licensing allows a longer and more involved role for families in the driving process (Lonero, 1999).

3.2 PARENT-TEEN DRIVING AGREEMENTS

Parent-teen driving agreements were pioneered in the US and are now in use in many countries including Australia (e.g. the Roads 2 Survival™ Parent-Young Person Safe Driving Agreement). They are written contracts between parents and young people regarding accepted driving practices and parental obligations.

Research shows that parent-teen driving agreements have been implemented successfully in a wide range of contexts and behaviours because they establish clear expectations, performance standards, consequences for noncompliance, and the period of successful compliance required to earn additional privileges (Kazdin, 1989; Kirschenbaum & Flannery, 1983, cited in Simons-Morton, Hartos & Leaf, 2002). Thus, driving agreements are a potentially important means by which parents can manage teen driving and reduce driving risks. Although there are a variety of driving agreements available in the US

¹ Note that exemptions for school activities apply in other jurisdictions, which would address much of this concern.

through insurance companies and local advocacy groups, none have been evaluated in terms of their content, adoption and effectiveness.

3.3 THE CHECKPOINTS PROGRAM

The Checkpoints program is a conceptually based educational intervention that aims to reduce teen driving risk by increasing parental management of teens' early driving through the use of persuasive parent education materials. Persuasive communications (PCs) are educational messages intended to alter salient beliefs or attitudes that motivate behaviour. The PCs are deemed to be effective because they are directed toward dispositions of the target population that are operationally related to the target behaviour. According to social learning theory, perceived norms, attitudes and expectations influence behaviour. Therefore, when a specific behaviour is presented as important, widely accepted, relatively easy to carry out, and effective if carried out, PCs may enhance people's capacity and motivation to perform that specific behaviour. Also, messages are likely to be most effective when they are clearly defined, credible, adapted to the needs and characteristics of the audience, and conveniently delivered to them.

According to Simons-Morton et al (2002), PCs adapted to the specific needs and perceptions of the target population and delivered frequently in an attractive and easily understandable form may influence parents to adopt driving restrictions to lower their teens' risk for crash. The Checkpoints program uses a video, newsletters and a parent-teen driving agreement to target PCs in this area.

The Checkpoints Driving Agreement was designed to encourage parents to strictly limit teen driving under high risk conditions (for example, on high speed roads, in bad weather, with teen passengers, and at night) during the first few months of licensure and gradually allow more driving privileges as teens gain driving experience and show responsible behaviour over the next year/s. The agreement was also designed to help parents establish teen driving rules, consequences for violating the rules, and markers of experience and success that will enable teens to gain more driving autonomy.

The Checkpoints program is based on the concept of authoritative parenting which advises that to be effective, parents should be both demanding and responsive (Simons-Morton & Hartos, 2002). Effective parenting involves establishing high expectations for behaviour and remaining highly involved and monitoring and supporting behaviour and ultimately rewarding responsible behaviour with increased autonomy. In the context of driving, authoritative parenting involves the establishment of clear expectations for initial driving privileges (e.g., the number of passengers, curfew, allowable driving purposes) and increasing driving privileges over time as the teenager gains experience and demonstrates responsible driving behaviour.

3.3.1 The program

The Checkpoints program was first piloted in Connecticut (Hartos, Nissen & Simons-Morton, 2001) and then implemented in Connecticut and Maryland.

Connecticut

In Connecticut, parents and teens were recruited when the teens received their Learner's permits. Families were randomly assigned to the Checkpoints program or a general traffic safety education group and followed for two years. Parents and teens completed telephone

interviews at recruitment, when teens became licensed and, at three months, six months and post-licensure. After recruitment, families received a video that introduces the risks of teen driving and sets expectations about restricting teen driving privileges and completing/adhering to a parent/teen driving agreement.

During the time teens had a Learner's permit, families were mailed frequent, brief, persuasive communications in the form of newsletters. These newsletters are designed to increase family perceptions about the extent and nature of certain risks posed by teenage driving (for example, not wearing a seat belt, driving with multiple teen passengers, driving late at night), normative expectations that most parents restrict their teen's driving, and the value of parents managing teen driving.

Families received a parent-teen driving agreement in the mail just prior to teens' obtaining a drivers' licence. During the first six months of the teens' driving licensure, families received additional newsletters that supported and encouraged parents to continue limiting and monitoring teen driving.

Maryland

In Maryland, parents and teens were recruited at the Motor Vehicle Administration office when the teens received their Provisional licence. On half of the weeks of recruitment, parents watched the Checkpoints video, were given a copy of the video and the Parent-Teen Driving Agreement. Those families were sent a follow-up newsletter a week later. Parents and teens completed follow-up interviews one, four and nine months after licensing.

Participants were provided with information about The Checkpoints Program intervention, which comprised a video, a contract-style agreement to be made between young drivers and their parents and a follow-up newsletter. The information provided focused on driving risks for novices, advantages of completing the agreement, and sections for families to set rules, consequences, and driving limits on driving with peer passengers, at night and on high speed roads. The materials encouraged families to set initial limits on the scope of unsupervised driving and gradually relax them over time.

3.3.2 Evaluation of outcomes

Hartos, Nissen & Simons-Morton (2001) conducted a pilot test of the Connecticut Checkpoints program. Using a convenience sample of 47 families, they found that 38 families reported using and liking the agreement and adopted the Checkpoints recommendations for strict initial limits on teen driving related to driving unsupervised at night, with teen passengers and on high speed roads. Parents reported placing more strict limits on their teens' driving than they originally intended.

A later Connecticut evaluation (Simons-Morton & Hartos, 2003) involved 452 families at five licensing offices. One group of families received the Checkpoints program materials and the other received a general set of materials related to driving and cars.

The results showed that most parents and teens attended to mailed persuasive communications and that exposure to these materials appears to influence attitudes towards teen driving restrictions, and increases initial parental restrictions on teen driving at licensure. Families exposed to the Checkpoints program reported stricter teen driving limits than the comparison group under high risk conditions at licensure and three months

post-licensure. These differences were statistically significant but modest. Measures of teen and parent gender, parental monitoring, teen impulse control, and teen and parent restriction expectations were taken at baseline and at each time point to assess the impact of the intervention on behaviour. For parents, treatment group, parent gender, teen baseline driving expectations, and parent baseline driving expectations were significantly associated with driving limits. Likewise, for teens, treatment group, teen and parent baseline driving expectations, and parent gender were significantly associated with higher driving limits.

An evaluation of the Maryland Checkpoints program (Simons-Morton, Hartos & Beck, 2003) involved a total of 658 parents and their 16-year-old adolescents. Follow-up interviews were conducted at one, four and nine months of Provisional licensure and reports were compared for intervention and control points. At one month, intervention parents reported more driving rules, restricted driving, limits for high speed roads, weekend night restrictions and overall driving limits than did parents in the control group. When compared to control teens, intervention teens reported more limits on passengers, high speed roads, and night driving, and on overall limits, but there were no differences for overall driving or driving under high risk conditions. Furthermore, intervention parents were about three times, and intervention teens were about five times, more likely than controls to report using a parent-teen driving agreement (Simons-Morton et al., 2003).

Restrictions on teen passengers, high-speed roads, and overall limits on driving were significantly greater in the intervention group than in the control group at four months. Although these differences decayed over time and were modest in size, treatment group differences on parent reported weekend night restriction and overall restrictions remained significant at nine months. The researchers point out that the magnitude of the effects and their persistence are less than ideal; on average, parents in both treatment groups allowed over one teen passenger at one month, nearly two teen passengers by the fourth month, and more than two teen passengers by nine months. However, they note that the observed differences are at least a step in the right direction.

The reach and fidelity of the parent based interventions developed for the Checkpoints Program seemed problematic. Almost 95% of parents and 90% of teens said they read at least some of the newsletters, yet only 76% of parents and 63% of teens watched the video, and less than half of the parents (45%) and teens (47%) reported that they completed the driving agreement. This finding is problematic and may reflect limitations in the usability of the agreement and or that parents are more likely to respond to materials that only provide information (for example, videos, and newsletters) as opposed to materials that promote action (driving agreement).

There is considerable evidence of discordance between parents and their children. Over 89% of the teens said they discussed the newsletters with their parents, and 82% of the parents said they discussed the newsletters with their teens. Parents may be likely to over-report that they discuss traffic safety issues with their teens, whereas teens may be likely to filter out some of this information. Research should focus on how parent information is received and filtered by young drivers, and whether parent-teen discordance is related to driving risk.

Beck (2002) notes that there are several factors that must be considered when assessing the impact of behaviourally based interventions such as the Checkpoint Program.

The intervention must be of sufficient intensity and duration to effect a change in the cognitive as well as the behavioural domains of the parents. Also, the parents' behaviour must be of sufficient duration and intensity to impact the cognitive and behavioural domains of their children. The final, and most ultimate outcome is to assess whether there has been a reduction in motor vehicle crash risk. If this occurs, it would be important to examine whether the parent intervention reduced novices' traffic exposure (they drove less often), reduced novices' risky driving (they drove more safely) or both.

3.4 CONCLUSIONS

Graduated Driver Licensing Systems (GDLS) are now viewed as the primary means by which young driver crash rates can be reduced but they rely on parents to facilitate supervised driving for Learners and to help enforce restrictions after young drivers obtain their licence to drive solo (P licence).

Parent-teen driving agreements are a potentially important means by which parents can manage teen driving and reduce driving risks. Evaluation of their effectiveness has been restricted to the Checkpoints program in the United States, which has shown an increased willingness of parents to restrict high-risk driving when newly licensed. Simons-Morton, Hartos & Leaf (2003) note that a great deal remains to be learned about the most effective timing, dose, intensity and content of mediated persuasive communications and their effect on the maintenance of parental limits on novice driving over time.

4.0 WHAT PARENTS NEED TO KNOW

4.1 CRASH RISKS OF YOUNG NOVICE DRIVER

4.1.1 Learner driver crash risks

It is common in jurisdictions worldwide for Learner drivers to have the lowest level of crash risk of any driver group, while Provisional drivers have the greatest risk. Early UK research estimated that crash risk in the first year of Provisional driving was at least 20 times higher than during the supervised Learner period (Forsyth, Maycock, & Sexton, 1995). Current Swedish research estimates this figure to be even higher at 33 times greater risk of an injury crash (Gregersen, Nyberg & Berg, 2003).

Swedish research examined whether crashes had increased as a result of extending the Learner period and encouraging more supervised experience, and what were common characteristics of these crashes (Berg, Gregersen & Laflamme, 2004; Gregersen & Nyberg, 2002; Gregersen, Nyberg & Berg, 2004). The former was not supported, with rates continuing to be very low (Gregersen & Nyberg, 2002). One study found the most common crashes were on 50k m/h roads (equivalent to 60 km/h roads in Australia), although Learners were under-represented in crashes on these roads (Gregersen & Nyberg, 2002). Learners were proportionally represented on 70 km/h roads but over-represented on 90 or 100 km/h roads (found in rural areas of Sweden). A second detailed study found four types were most common: rural crashes on straight roads at 70 km/h and at high speeds, and rear-end and intersection crashes at low speeds in urban areas (Berg et al, 2004). Loss of control on bends and crashes in darkness were also more prevalent for 17-19 year-olds in the UK (Clarke, Ward & Truman, 2002).

UK research examined differences due to supervisor type (Gregersen et al, 2004). Fewer (and no fatality crashes) occurred under professional instruction (14%) compared to private instruction (86%), partly attributed to dual control systems but also the much greater and varied driving exposure experienced under private supervision. The latter was confirmed in UK research in relation to length, time of day, road types and driving speeds; in particular, substantially more practice was gained in darkness (Groeger & Brady, in press).

4.1.2 Provisional driver crash risks

WA research estimated Provisional drivers were five times more likely to be in a crash than older drivers (Adams, 2003a), while first year drivers were found to have a crash rate 3.5 and 2.6 times greater than drivers licensed for ten and five years, respectively (Palamara, Legge & Stevenson, 2002). US and EU research found this very high initial crash involvement is highest in the first few months of driving, decreases rapidly during the first 6-8 months and continues to decrease up to the first 12 months (Engström et al, 2003; Mayhew, Simpson & Pak, 2003; McCartt, Shabanova & Leaf, 2003). US research also found that citations rates were highest in the first month, dropping quickly thereafter (Gregersen & Nyberg, 2002), while WA research showed incurring a traffic offence further increased risk of a crash during the first 12 months (Adams, 2003a). Swedish research found young drivers were less likely to have a reversing crash, more likely to have a drink-driving crash, but there was no difference in fatal loss-of-control crashes compared to experienced drivers. Young males had proportionally more off-road and excessive speed-related fatal crashes than females (Laapotti & Keskinen, 2004).

While driver age alone was related to crash risk, US research confirmed inexperience was the main contributing factor: particularly errors in attention, visual search, speed relative to conditions, hazard recognition and emergency manoeuvres (McKnight & McKnight, 2003). Very few crashes could be attributed to intentional risk-taking behaviours, such as excessive speeds (although these were found to remain clear risk factors of young driver crashes; Lam, 2003b). Victorian research also found novices tended to focus on near hazards, in particular those in adjoining lanes, making them significantly poorer than experienced drivers at detecting hazards in the driver's lane (Whelan et al, 2002).

4.2 WHAT ABOUT DRIVER-TRAINING PROGRAMS?

Repeated reviews of the effectiveness of traditional one-day vehicle-handling and control training programs show few benefits for either Learner or Provisional drivers in terms of crash and injury reductions (e.g. Christie, 2001; Christie & Harrison, 2003). In fact in some cases, training can be counterproductive resulting in inflated confidence and risk-taking, such that traffic violations and crash involvement increase (see Katila, Keskinen & Hatakka, 1996; Keskinen, Hatakka, Katila & Laapotti, 1992).

For Learner drivers, basic vehicle-handling skills training (professional lessons) is important and effective in learning to operate a vehicle in traffic, in passing practical driving tests, and in reducing crashes during the Learner period (Christie, 2001; Gregersen et al, 2003). The experience gained during this period has been shown to differ under private and professional instruction, with private experience resulting in exposure to longer driving sessions in more varied driving conditions and, therefore, potentially greater crash risk while practising (Gregersen et al, 2003). Training of car control skills does not, however, protect Learners from crash involvement once they have graduated to a licence that allows unsupervised driving (e.g. Keskinen et al, 1992).

Overall, the most protective factor in reducing crash risk as a Provisional driver is many and varied hours of driving experience as a supervised Learner (see Mayhew & Simpson, 1996; Gregersen, 1996). Driver-training programs should primarily seek to supplement this experience.

4.3 SUPERVISING LEARNERS

4.3.1 How much driving practice is needed?

Road safety agencies recommend that Learners complete at least 120 hours of supervised driving before obtaining a Provisional licence. This is based on Scandinavian research (described below) that linked extent of supervised driving with crash reductions in the early stages of unsupervised driving.

Specific evaluations were conducted in Sweden and Norway, where a Learner period exists followed by licensing with a 'Probationary' condition attached that attracts stricter penalties, but has no additional restrictions or requirements. Following their introduction of a GDLS, both countries lowered their minimum Learner age while keeping the licensing age stable at 18 years of age. In Sweden, the minimum Learner age was reduced from 17.5 years to 16 years. In Norway, the age reduction was from 17 years to 16 years. Sweden experienced a 15% reduction in crash risk for newly-licensed drivers based on this initiative (Gregersen, Berg, Engström, Nolén, Nyberg & Rimmö, 2000). Further, it was found that the 45-50% of Learners who utilised the period to gain more driving experience

(average 118 hours) had a 40% lower crash risk (per kilometre) than those who did not (average 41 hours) (Gregersen, 1997, 2001). The study also found that drivers making use of the lowered age limit had a tendency to come from a higher socio-economic group. After adjusting for this factor, the crash risk benefit was still estimated to be substantial: about a 35% reduction. A recently published evaluation of crash trends in Sweden from 1988-1998 has confirmed these crash reduction benefits (Murray, 2003).

In contrast, the Norwegian evaluation found that while 54% of Learners used the lower minimum age to commence learning before 17 years of age, there was only a small increase in supervised driving experience (by number of sessions and distance travelled) (Sagberg, 2000). No reduction in crash risk per kilometre was found for newly-licensed drivers.

Baughan and Simpson (2002) caution that a clearer understanding of the contrast between these two similar countries is needed before road safety predictions based on lowering the Learner age can be determined. It seems young people in Norway were not motivated to obtain a permit early and, therefore, a targeted education campaign may have been required to produce synergistic positive outcomes.

4.3.2 The mix of supervised driving and professional driving lessons

In Australia, instruction for Learner drivers can be provided by a qualified professional driving instructor or any licensed driver who meets minimum requirements legislated at a state level, such as a minimum licence-holding period. For example, in Victoria and Western Australia, a lay supervisory driver must have held a full licence for a minimum of two years, whereas in Queensland the supervisory driver must only have held a Provisional licence for 12 months. Therefore, training undergone as a Learner driver can be under the direction of parents, family and friends, and/or professional driving instructors. This contrasts to some European countries that only allow instruction by qualified professionals (e.g. Denmark, Germany and The Netherlands; Gregersen, Nyberg & Berg, 2003). This has resulted in a number of studies that have compared the relative benefits of professional versus private instruction.

Early research in the United Kingdom (UK) found that Learners who had gained some private driving experience in addition to a moderate number of professional lessons were more likely to pass their driving test, while those who had undertaken a substantial number of professional lessons were less likely to pass the test (Forsyth, 1992). While these findings might be interpreted as suggesting that there is a threshold beyond which professional instruction becomes counterproductive, they might also indicate that instructors correctly spend more time with drivers whose skills are less developed or who are slower to learn (Groeger, 2001; Hall & West, 1996). Notably, however, the latter explanation could indicate that the additional professional training was not effective. These findings have also been replicated in the UK more recently in a study that controlled for several other factors, such as academic grades, IQ and personality variables, therefore supporting the former explanation (Groeger, 2000; Groeger & Brady, in press). Groeger's research showed that the type of experience gained under private instruction was more varied in terms of length, time of day, road types and driving speeds than that with professional instructors. In particular, substantially more practice was gained in darkness. This further supports Forsyth's (1992) findings that the optimal combination of instruction is a moderate number of professional lessons in addition to the valuable driving experience gained under private instruction.

4.3.3 Who is an appropriate supervisory driver?

Given that both young age and inexperience are critical crash-risk factors (Drummond & Yeo, 1992; IIHS, 1999), age and experience-based requirements for supervisory drivers aim to ensure that only experienced and non-peer drivers take on this role. Mandating minimum requirements for supervisors should increase the likelihood that the supervisor has developed critical higher-order cognitive skills to enhance the experiential learning process.

Generally, supervisors include professional driving instructors, parents, relatives, carers or friends of the Learner driver. While instructors can provide professional training, parents and others acting as supervisory drivers provide support and facilitate the accumulation of on-road supervised experience (VicRoads, 2002).

Requirements for supervisors in Australian GDLS models range from a minimum experience of one year of Provisional licensure (Queensland) to four years on a full licence, and from no BAC restriction to a 0.05% limit. In addition, one jurisdiction mandates that the full licence must not have been suspended in the previous two years. Sweden also has a limit on the number of demerit points a supervisory driver can incur (Berg et al, 2004).

In comparison to international models, therefore, while Queensland can be viewed as having the most lenient requirements of any Australian jurisdiction, this corresponds to a minimum age of 18 years, in line with age equivalents in many overseas jurisdictions. Nonetheless, this does not meet the primary objective of supervisory requirements in ensuring an adequate standard of driving experience and a non-peer role to the Learner driver.

Requirements based on years of full licensure also may not avoid the possibility of peer supervisors in some circumstances. For example, until 1999, New Zealand mandated a minimum age of 20 years for supervisory drivers in addition to the two years of full licensure. The removal of this requirement results in an age overlap between allowable supervisory drivers and restricted passengers for Provisional drivers. Supervisory drivers can be a minimum age of 19 years, yet passenger restrictions apply to passengers under 20 years of age. Such inconsistencies can be overcome by mandating minimum ages in addition to minimum licensure requirements.

Mayhew and Simpson (1999) stated that it is worthwhile encouraging zero BAC limits for supervisory drivers, given that they play such an important role in the learning experience. This is also important in situations where the supervisor may be required to take over the driving. Mandating a zero BAC limit sets an example to the Learner that even small amounts of alcohol are considered to have an effect on driving.

4.3.4 What if I'm not ready to be a supervisor?

While some parents may rightly decide that their child is not ready to learn to drive, in general they must be reassured that the Learner period is an extremely low risk period – lower than any subsequent driving phases. The learning period can be a stressful time for both parents and Learners, especially in the early stages (Harrison, 2003). It might be useful to remind parents in guidelines that professional instructors can be of value in the early stages for establishing basic vehicle-handling skills so that parents can be more comfortable when first acting as supervisors. Too often professional instructors are seen as

a resource to pass the practical driving test required only at the very end of the Learner period (Fitzgerald & Harrison, 1999).

4.3.4 Range and complexity of driving conditions

A notable concern with providing logbooks and encouraging varied experience, is that there are few guidelines for Learners or parents on how to structure that experience or on what conditions pose the greatest risk (Berg, Gregersen & Laflamme, 2004). The need to graduate driving experience from lower to higher-risk conditions is sometimes recognised in supporting materials in relation to building up from short to long trips, from clear to poor weather and/or from light to heavy traffic. These are only a few of a range of additional or overlapping recommendations that could be highlighted, for example:

- off-road (carpark etc) to on-road;
- low to high speeds or low-speed roads to high-speed roads;
- daylight to darkness conditions, as well as day to night;
- weekday evenings/nights to weekend evenings/nights;
- with no additional passengers to increasing additional passengers²; and
- automatic to manual vehicles, when possible.

One positive finding emerging from the research relates to driving at night or in dark lighting. The Norwegian research (Glad, 1998, cited in Mayhew, Simpson, Williams, & Ferguson, 1998b) demonstrated that it was possible to reduce crash rates amongst drivers during night-time hours by conducting training programs in dark daylight or night-time hours. This study not only found a significantly lower crash rate for night-time driving amongst males, but that the effect was evident at a two-year follow-up.

4.3.5 Knowing when to increase exposure, complexity

Notwithstanding these recommendations, there is still a general lack of information or guidelines on how to graduate experience towards the higher-risk situations or how to assess whether the Learner has developed sufficient skills in less complex areas before progressing to subsequent levels. Competent handling of a vehicle is only a first step and can be greatly misleading in determining preparedness for the more higher-risk situations that require much more advanced cognitive skills and safety-focused attitudinal-motivational orientations, which are rarely addressed in jurisdictions worldwide.

Further research and developments are needed to assist parents and Learners to better achieve more structured, graduated experience during this critical stage.

4.4 REDUCING RISKS OF NEW PROVISIONAL DRIVERS

While Learner drivers have a very low crash rate, newly licensed Provisional drivers have the highest crash rate of any group. Thus, potential exists to combat this increase in crash risk by providing guidance to parents on how to limit the exposure to high-risk driving

² as stressed by the University of North Carolina Highway Safety Research Centre (1996)

situations of their newly-licensed children. The driving situations most commonly identified as high-risk are:

- Carrying peer passengers
- Driving at night
- Drink driving
- Driving while fatigued

US and NSW research confirmed young drivers still tended to drive in conditions of greater risk more often than experienced drivers: on weekends, at night and with peers in recreational circumstances (Lam, 2003b; Williams, 2003). Research in Greece also confirmed that recreational driving was associated with higher crash risk for young drivers; irritability was also significantly related (Chliaoutakis et al, 2002).

While intentional risk-taking was therefore not characteristic of all young drivers or all of their driving, UK research found young drivers, particularly males, were faster, more aggressive, had a greater propensity to violate rules and react quicker in traffic; thereby leaving smaller margins of error (Maycock, 2002). European research also found those who rated themselves as more dangerous and faster than others were more likely to be young males, break the speed limit more often, avoid seat-belt use, and have higher crash involvement (Karlaftis et al, 2003). Finnish research found young drivers, particularly males, had more negative attitudes towards traffic rules and safe driving, reporting increased driving exposure, more at-fault crashes and more driving when slightly drunk (Laapotti et al, 2003).

4.4.1 Risks associated with carrying peer passengers

Risk has been found to incrementally increase from one to two passengers and from two to three or more for all young drivers under age 25 irrespective of licence type (Lam, Norton, Woodward, Connor & Ameratunga, 2003). WA research found that young drivers licensed for less than 12 months, were up to eight times more likely to be involved in a fatal passenger injury crash compared to experienced drivers (Adams, 2003a). Preliminary Victorian research suggested the increased risk with one additional passenger was similar for young drivers than experienced drivers but inflated with two or more passengers, which was more common at night (Cavallo, 2003). Increased risk with passenger carriage was found to exist for both day and night-time hours in about the same proportions in the US; however, with overall crash rates being much higher at night (Williams & Ferguson, 2002).

German research found an otherwise protective effect of passengers, with crash risk being reduced for young drivers during darkness, in slow traffic and at crossroads, especially failure to give right-of-way and risky passing behaviour (Vollrath et al, 2002).

Foss and Goodwin (2003) report that non-compliance with passenger restrictions in US States is more common than for night-time driving restrictions. They argue that while parents are able to monitor use of a vehicle at night and their supervision requirements, it is far more difficult to monitor the carriage of passengers (when supervisors are not present) and this may contribute to the greater non-compliance.

Mayhew et al (1998) noted, however, that while the proportions of young drivers reporting non-compliance was relatively high in some instances, those that had violated the restrictions reported doing so only rarely. Notably, up to 72% of those violating some conditions (e.g. the night-time driving restriction) did so with their parents' permission. Conversely, parents indicated it was easy to enforce the restrictions.

4.4.2 Risks associated with night-time driving

Increased crash, fatality and/or injury risk at night has been confirmed for Provisional drivers in NSW, WA and the US (Adams, 2003b; Lam, 2003b; Rice et al, 2003). However, this increased risk was not found for Learners in the NSW research, supporting the contention that this is a safer practice period (Lam, 2003b).

4.4.3 Higher risks of drink driving and driving while fatigued

Research also confirmed the safety disbenefits of driving when fatigued or following alcohol consumption (Adams, 2003a; Featherston et al, 2002; Lam, 2003b). In NSW, fatigue was found to increase the risk of a casualty crash by more than twice for all young drivers irrespective of licence status (Adams, 2003a). In WA, more than one-tenth of first year drivers were found to have an illegal BAC (0.02% or greater) (Lam, 2003b). About one-third of all drink-drivers were repeat offenders with the majority male (90%) and aged under 25 years (65%). Repeat offenders had a crash risk that was 2.3 times greater than that for drivers without drink-driving offences (Featherston et al, 2002). New Zealand research further contributed to the established association of increased risk with increasing BAC level, with this risk greater for young drivers than other drivers (Keall et al, 2004). Drivers in their 20s had more than five times the risk of drivers over 30 years at all BAC levels. Moreover, this differential risk was inflated further at night and with every additional passenger. Related US research suggested problems with designated driver campaigns (Timmerman et al, in press). One-quarter of young people selected drivers during or after drinking and many designated drivers were above legal BAC limits, especially males.

US research showed that drink driving is also associated with drug driving and both are associated with a higher frequency of risky driving practices (speeding, passing, close following, lane usage, right-of-way, turning and control-signal behaviours) for young drivers (Clapp et al, 2003; Shope & Bingham, 2002). A new approach to exploring young driver drink and drug-driving emerged in New Zealand in terms of persistent driving after use (Begg et al, 2003). Of drivers who persisted with unsafe driving after drinking, males were more likely to be aggressive at age 18 years and alcohol dependent at 21 years. Of drivers who persisted driving after cannabis use, females were more likely to report high substance use at 18 years, cannabis dependence at 21 years, police contact as a juvenile and to be a mother at 21 years. Males were more likely to be dependent on cannabis at 21 years, have at least one traffic conviction before age 18 years and to report low seat-belt use at 18 years.

4.5 VEHICLE RECOMMENDATIONS

While most young driver initiatives focus on the driver and their crash risks, it is also important to examine vehicle protection factors such as vehicle age and vehicle size. Young drivers tend to drive smaller cars that provide less crash protection, and to drive older cars that lack many of the safety features of modern vehicles, such as airbags (Arup Transportation Planning, 1995; Cammisa, Williams & Leaf, 1999; Williams, Preusser,

Lund & Rasmussen, 1987). These factors reduce the protection offered to occupants, increasing their risk of serious injury (Di Pietro, 1998; Ferguson, 2003).

Cammisa et al (1999) found that car ownership by young drivers was related to their increased crash risk. They found that, once licensed, 60% of young people drove a vehicle that was different to the one in which they learned to drive and that 28% of these changes were from a larger to a smaller car. The main reasons young drivers chose to drive a particular vehicle was existing ownership (38%), the vehicle was cheap (22%), it was what the driver wanted (13%) or it was small and manoeuvrable (10%). Safety features were rarely mentioned as a reason for choice of vehicle (<2%). Cammisa et al concluded that requiring novices to drive only larger and/or newer vehicles would decrease their crash involvement.

In contrast, a study of family decisions of which vehicle a young, newly-licensed driver should drive found that much more emphasis was placed on transmission type (automatic), fuel economy and safety features (ABS and airbags) than large size (Rivara, Rivara & Bartol, 1998).

These findings suggest that better education is needed regarding the safety benefits of buying a slightly older but larger car with more safety features over a similarly-priced younger but light or small car that offers less crash protection (see Newstead, Cameron & Watson, 2004). In general, for example, a somewhat older, larger sedan or station wagon offers greater crash protection than a new, small hatchback of comparatively similar cost.

While this issue is difficult to address within a GDLS, Ferguson (2003) has recommended that young drivers and especially parents, who are an integral part of the GDLS process, be made aware of vehicle aspects other than obvious safety features such as airbags that moderate crash risk, including increased risk of small size, high power and unstable vehicles, such as four wheel drives. Providing parents with educational materials has recently been shown to be effective in positively influencing newly-licensed drivers' road safety behaviours (Simons-Morton, Hartos & Beck, 2003).

4.6 CONCLUSIONS ABOUT CONTENT OF PARENT RESOURCE

The table below summarises what parents of Learners and Provisional drivers need to know. Much of the content is similar, but it is as yet unclear whether a combined resource would be appropriate and effective.

Table 4.1 Summary of content of parent resource

Content	Parents of Learner drivers	Parents of new Provisional drivers
Novice driver crash risks	✓	✓
Effectiveness of driver training programs	✓	✓
Amount of practice needed	✓	
Appropriate supervisors	✓	
Graduating driving complexity	✓	
Peer passenger risks		✓
Night-driving risks		✓
Vehicle recommendations	✓	✓

5.0 CURRENT RESOURCES

This chapter describes the resources available to parents of young drivers in each State of Australia and in some overseas jurisdictions. The focus is on those resources provided by government licensing agencies, because it is expected that these will have the greatest reach. Resources provided by non-government departments are described where they are likely to be taken up on a state level or contain research that could complement current resources.

For each jurisdiction, the licensing system is first described to provide a framework for understanding the role of the resources that have been developed.

5.1 AUSTRALIAN CAPITAL TERRITORY

5.1.1 Licensing system

The ACT has an optional three or four-phase licensing process. Drivers have two options to progress from the Learner to intermediate licence phase and a further option in the intermediate licence period to change licence requirements/restrictions. Applicants for a Learner permit must be 15 years 9 months. They must hold this permit for a minimum of 6 months before applying for an intermediate licence and they can only drive under the supervision of a fully-licensed driver.

There are two means to obtaining the first, mandatory intermediate licence (*P1*), which cannot be obtained until 17 years of age. Applicants have the choice of either passing a one-hour, on-road practical test or undertaking Competency Based Training and Assessment (CBTA). For the latter, drivers must undertake training and demonstrate 22 competencies pertaining to on-road driving skills with an accredited driving instructor, which involves some logbook requirements. Intermediate licences must be held for three years. Once the intermediate licence has been held for six months, there is an option for drivers to complete an education course that allows them to progress to an optional second intermediate licence phase (*P2*). On completion of this course, drivers are permitted to remove their *P*-plates and the demerit point threshold is increased.

The minimum age to acquire a full driver's licence is 20 years.

5.1.2 Resources provided by licensing agency

The ACT Department of Urban Services has developed the Road Ready program to assist new drivers. There are four modules and each has a targeted audience:

1. The Pre Learner module - for parents and early adolescents.
2. The Pre-Licence Learner Driver module - for (mostly) Year 10 students.
3. The Learner Driver Module - for parents, the Learner driver and professional driving schools.
4. The Solo Licensed Novice Driver - Provisional licence holder.

The key components of the program are:

- A classroom program that includes a range of interactive activities designed to help make young people aware of issues relating to safer road use before they begin to learn to drive.
- Encouragement for parents or carers to make time available for extra driving practice for Learner drivers.
- Support for Provisional licence holders with information, and encouragement to participate in a workshop about the experiences of driving in the first six months of having a licence.

Road Ready publishes six books, which are aimed to assist Learners how to drive, and provide supervisors with helpful guidelines with which to teach both Learners, and pre-Learners. Three of these books are particularly relevant for supervisory drivers:

- *Preparing Your Pre-Learner for Driving.*
- *Supervising a Learner Driver.*
- *Learning Through Practice.*

Preparing Your Pre-Learner for Driving contains useful information on how to introduce a pre-Learner to the task of driving, whilst still a passenger. It includes the following strategies and games for the supervisor to use with the pre-Learner:

- Commentary driving, (whereby the pre-Learner and supervisor discuss what is occurring in the traffic).
- Co-navigating (whereby the pre-Learner develops his or her own ‘cognitive map’ of local streets and familiar routes by giving the supervisory driver directions).
- Error spotting (whereby the pre-Learner builds up an awareness of the sorts of unsafe or illegal behaviours that other road users may engage in).
- Speed sensitivity (whereby the pre-Learner becomes familiar with speed limits, the concept of maintaining a safe stopping distance, and driving to the conditions).
- Planning ahead (whereby the pre-Learner becomes familiar with planning trips depending on the traffic congestion, and estimating travel times in order to avoid stressful situations involving time pressure).

Supervising a Learner Driver is designed to provide information to supervisory drivers both before they commence supervising, and whilst supervising a Learner driver’s practice sessions. The book introduces supervisory drivers to the crash statistics of newly licensed drivers and the importance of accumulating as much driving experience as possible, and the pathway to obtain a Provisional driver’s licence. The book encourages supervisors to continue to use the strategies outlined in the pre-Learner book whilst the Learner is a passenger. The book also includes detailed information about choosing a professional driving instructor, including:

- Consideration of the size and type of vehicle Learners use,
- Costs,

- Transmission type,
- Ensuring that the instructor is accredited.

Unlike other information included in this report, this book encourages Learners to drive with a professional instructor for their first time behind the wheel. The importance of clear guidelines are emphasised with two examples of contracts that can be drawn up between the Learner and supervisor. With the Learner compensating the supervisors time by completing various house chores, the contract can also demonstrate to the Learner that driving is a privilege that carries with it responsibility. Guidelines for the management of conflict during practice sessions are outlined; particularly in cases where the Learner feels that there are inconsistencies between the supervisor's instructions and the professional driver's instructions. In such instances, the supervisor is advised to contact the professional driving instructor to clarify the correct instruction. The final section of the book outlines a three step learning process as follows:

- The first step, 'Getting Started', is aimed at getting the Learner familiar with car controls and with the vehicle on quiet streets.
- The second step, 'Moving into Traffic' involves guiding the Learner through driving in light traffic driving situations, and an increase in the length of practice sessions (progressing from the step 1 length of 15-30 minutes to 30-45 minutes).
- The third step, 'Gaining Plenty of Experience', focuses on getting Learners to make more independent driving decisions as they progressively gain more experience. Here, Learners are encouraged to gain driving experience in a variety of conditions, focus on getting better at perceiving and responding to traffic hazards, and to understand that their learning does not cease after they gain their intermediate licence.

The third book, which provides information for supervisory drivers, is *Learning Through Practice*. It has a similar introduction to the previous book, namely, crash statistics, the importance of knowing the road rules before starting practice sessions, and that practice can be gained whilst being a passenger (see *Preparing your Pre-Learner for Driving*).

- The first section covers the types of crashes that involve young drivers (in more detail than in *Supervising a Learner Driver*) with the use of diagrams, list of possible causes for the crash, and a checklist of skills and ideas for practice. For example, the section on rear end crashes provides two separate sections for dealing with these crashes, depending on which driver is at fault. For example:
 - If the car behind is at fault, it lists maintaining a safe stopping distance as a skill to learn, and suggests the Learner and supervisor discuss causes for braking early and how to avoid this.
 - If the car in front is at fault, the book lists skills such as developing 'cognitive driving maps' in order to drive to the destination confidently, or planning the route in advance.
- The remainder of the book is dedicated to describing numerous driving conditions, and encouraging gaining practice in these different conditions by providing a logbook for each condition. These conditions are divided into:

- Weather conditions (including dry/fine, wet, and icy/snow).
- Driving conditions (night driving, and driving at dawn/dusk).
- Type of road (residential street, undivided main road, rural highway, freeway, and gravel road).

5.2 NEW SOUTH WALES

5.2.1 Licensing system

New South Wales has a four-phase GDL model – Learner, First Intermediate Licence, Second Intermediate Licence and Full Licence. Applicants for a Learner permit must be 16 years of age and must hold this permit for a minimum of six months before applying for an Intermediate Licence. Learners can only drive under the supervision of a fully licensed driver and must complete a logbook to record a minimum of 50 hours driving.

Applicants for the first intermediate phase, termed Provisional Licence (P1), must be a minimum of 17 years of age and must hold this licence for twelve months before applying for the second stage of intermediate licensure.

Applicants for the second intermediate phase, termed Provisional Licence (P2), must be a minimum of 18 years of age and must hold this licence for a minimum of two years before applying for a full licence.

A full licence can be acquired two years post-P2 licensure. The minimum age to acquire a full licence is 20 years.

5.2.2 Resources provided by licensing agency

The NSW government state licensing authority – Roads and Traffic Authority (RTA), has produced four resources to help beginning drivers learn to drive safely. These are:

- Road Users' Handbook
- New Drivers' Handbook
- A Guide to Driving Ability Road Test (DART)
- Learner Driver Logbook

Much of the material in these resources is designed to teach beginning drivers how to drive, provide them with information about road rules and to make them aware of their elevated crash risks and provide suggestions about how they can reduce these risks. The New Drivers' Handbook comprises a section specifically for supervisors entitled 'Information for supervising drivers'.

It covers information about:

- The importance of gaining as much driving experience with a supervisor in a variety of driving conditions in order to reduce their accident risk during the Provisional stage of licensure. This is supported by research demonstrating a relatively low level of risk to Learners whilst they are under supervision.

- Ensuring that the supervisor holds a current full driver's licence, complies with current road rules (such as BAC limits, traffic lights, road markings etc) with a suggestion to review these rules in the *Road User's Handbook*.
- The importance of being a good role model, including providing guidance and feedback about performance, being patient and supportive, and monitoring and keeping a record of the Learner's progress.
- Strategies aimed to assist the supervisor, including starting out with frequent and short practice sessions, starting with basic skills in quiet areas during daylight hours, minimising in-vehicle distractors, using the log book task key points as guides to practice sessions, adopting a style of 'Commentary Driving' (whereby the driver and passenger discuss what is occurring in and outside of the vehicle), and teaching the Learner to develop a sensitivity about speed – that the faster the vehicle is travelling the harder it is to perceive and respond to potential hazards.

In the May edition of the NSW Government's magazine "Parenting: The teenage years" a brief article was prepared by the RTA, NRMA, and YouthSafe. It was written to increase awareness of increased risk of crashes and serious injuries to newly licensed drivers, to invite parents of Learner drivers to attend parent workshops called "Helping Learner Drivers Becoming Safer Drivers", and to outline the NRMA's SHIFT interactive CD-ROM which is aimed at demonstrating the complexities of the driving task. Finally, two lists are provided summarising tips to supervising (starting off in quiet streets, being positive, providing clear instructions) and driving skills that Learners often have difficulty with (judging position of vehicle on the road, city driving, and driving in heavy traffic).

Since changes to licensing restrictions were introduced, free workshops for parents and supervisors of Learner drivers have been offered by Local Government. These two-hour workshops focus on 3 areas:

1. Understanding the Learner driver logbook
2. Increasing confidence of supervisors.
3. Understanding the principles of safe driving practice.

Each parent receives an information kit that focuses on areas such as planning each practice session, outlining the restrictions for Learners and Probationary drivers, and strategies for the supervisor (including being patient, and remaining calm) and the Learner (including how to handle passengers in the vehicle once the Probationary licence has been obtained).

5.2.3 Other resources

The National Roads and Motorists' Association (NRMA) provides an additional resource for supervisors. Their booklet titled 'Getting There' is available free of charge and includes contributions by RTA and the Australian Driver Trainers' Association. This booklet is largely based on VicRoads' 'Getting There: From L's to P's'. It is designed to accompany the RTA Learner Drivers' Log Book. The booklet is aimed at providing advice for Learners and supervisory drivers throughout the Learner period, Probationary period and beyond. The first part of the booklet separates learning into three stages:

- Starting Out – covers basic vehicle handling in quiet locations, including operating the vehicles' controls, stopping, driving smoothly around a specified path, using mirrors to scan etc.
- On The Road – transfers the skills learnt in the first stage onto both quiet and busy streets. Skills taught in this stage include obeying basic traffic signals, checking for blind spots, parallel parking, and negotiating roundabouts.
- Beyond The Basics – moves onto more complex driving situations and skills, including merging onto freeways and busy intersections. The importance of constantly searching for hazards, maintaining concentration with passengers in the vehicle, and maintaining a safe speed and distance from other vehicles etc are outlined.

Each stage includes a tick the box checklist, provided to ensure the Learner is able to demonstrate the acquisition of various skills for different driving situations before progressing to the next stage.

The booklet then discusses the importance of gaining high amounts of on-road experience before attempting to obtain the Probationary licence, and then highlights the risk of accident involvement for Probationary drivers in their first year of licensure. The booklet then provides information specifically for supervisory drivers. This section discusses myths related to being a supervisor, for example, that learning to drive is easy, that experts should be the only ones to teach Learners. The following section provides strategies to assist supervisors. These strategies are similar to the New Drivers' Handbook, although dealing with conflict and criticism are discussed in more detailed in this booklet, which even provides advice for supervisory drivers to plan practice sessions when they are not preoccupied with stressful issues. The strategies are structured under the following headings:

- Start simple – emphasising the importance of starting off in quiet streets with no distractors.
- Set a few rules – which advises that Learners and supervisors should write down some guidelines detailing each other's expectations (especially if there will be more than one supervisor) in order to minimise conflict.
- Have a plan – emphasises planning the practice sessions before setting out based on the skill level of the Learner.
- Talk about it – points out the importance of the supervisor's voice remaining calm and using simple language, providing positive reinforcement, encouraging the Learner and supervisor to discuss any issues at the end of the session which can be used to help plan the next session.
- Time it right – suggests a 30-minute practice session is an optimum amount of time to start the sessions before gradually increasing them.
- Don't rush – points out that the supervisor's role as instructor should decrease as the Learner's skill level increases and emphasises that people learn at different rates.

- Understanding the tricky bits – lists the most complex driving skills and concepts that Learners often have difficulty with, based on recent surveys, and emphasises planning to gain experience at these specific skills. Skills and concepts include hazard perception, merging, roundabouts, rainy and foggy conditions, danger of driving when emotional or upset, danger of overconfidence, and danger of distractions etc.

The final chapters provide additional information to supervisors by pointing out what types of accidents commonly occur in newly licensed drivers (for example, rear end, or at intersections) and how to avoid these accidents (for example, reduce speed, increase following distances, and make eye contact with other drivers etc). Following a chapter discussing answers to frequently asked questions, (including what is a hazard, and how do I choose a driving instructor), the final chapter is aimed at providing supervisors with advice and information once the Learner has obtained their Probationary licence, including agreeing on conditions in addition to the requirements and restrictions of the P1 and P2 licences. These conditions include the issue of recreational driving, driving the car with passengers and being a passenger in a friend's car, and making regular inspections of the vehicle's exterior and interior. Factors that increase accident risk are also discussed, including speeding, night-time driving, country roads, alcohol and drugs, fatigue, and seat belts.

5.3 NORTHERN TERRITORY

5.3.1 Licensing system

There are two options to progress through the Learner and intermediate licence phases in the Northern Territory, through either the traditional licensing processes (theory and practical testing) or government-subsidised education and training (known as the Driver Training and Licensing (DTAL) program. The minimum age for obtaining a Learner permit in the NT is 16 years. Applicants who choose the traditional pathway, must pass a theory and eyesight test, while those who choose the DTAL pathway, must complete 6 hours of theoretical CBTA in addition to the eyesight test. The permit must either be held for a minimum of six months or if drivers choose the DTAL CBTA path to intermediate licensing then there is no minimum holding period. Learner drivers must be accompanied by a fully-licensed supervisory driver.

The intermediate licence can be obtained after passing an on-road practical test at a minimum age of 16 years 6 months by the traditional path or as early as 16 years if choosing the DTAL CBTA option. The latter requires an additional four hours of off-road sessions and successful completion of the CBTA program.

A full licence may be obtained after 12 months of intermediate licensure, therefore, from a minimum age of 17 years for DTAL CBTA graduates or 17 years 6 months via the traditional pathway.

5.3.2 Resources provided by licensing agency

No resources provided to drivers supervising a Learner in the Northern Territory were identified.

5.4 QUEENSLAND

5.4.1 Licensing system

The minimum age for applying for a Learner permit in Queensland is 16 years 6 months. The minimum holding period is six months, and Learners must be accompanied by a fully licensed supervisory driver or a driver who has held an intermediate licence for at least one year.

The intermediate licence is obtained by passing an on-road practical test at the minimum age of 17 years. Age based restrictions apply, whereby drivers under 23 years of age are required to hold their intermediate licence for three years. Drivers aged over 23, but not yet 24, must hold their intermediate licence for two years while for drivers aged 24 or older, the holding period is only one year.

The minimum age to obtain a full drivers licence is 20 years.

5.4.2 Resources provided by licensing agency

The Student Driver Education (SDE) section of the Queensland Government's website www.roadsafety.qld.gov.au has a page titled "The role of parents" (Queensland Government, 2004). Links are provided to the booklet published by The Centre for Accident Research and Road Safety, Queensland (CARRS-Q), which is described below. After a brief introduction outlining the important role that parents play in teaching their Learner to drive, the website then provides a list of in-school activities for students emphasising the role of parents (including organising an information session evening for parents, practicing commentary driving etc).

5.4.3 Other resources

CARRS-Q has published a booklet titled 'A practical guide for tutors of Learner drivers'. The booklet is predominantly for supervisory drivers, but professional driver trainers can also use it to teach their Learner how to drive. The booklet includes a four step learning process and a checklist of skills to cover during a practice session.

The booklet points out that supervisors do not have to take all of the responsibility of teaching the Learner how to drive. Rather, the ideal way is to combine professional driving lessons (when available) with practice sessions with the supervisor. The booklet lists the things that supervisors do well, beside the things that professional driver trainers can do well (the former includes providing a range of practice opportunities, whereas the latter includes teaching correct driving techniques). Before outlining the three step learning process, hints are given to the supervisor, including not continuing a practice session if either the supervisor or Learner is upset, the importance of demonstrating new skills before the Learner attempts them, and spreading practice sessions and driving lessons over the course of the 6 month holding period rather than just at the end.

- The first step in the learning process is titled 'Getting started', which involves familiarising the Learner with car controls, and driving in low traffic areas. The checklist for this step is divided into:
 - Car controls (for example, knowing where the seat adjustment, and mirrors are),

- Introductory driving skills (for example, being able to adjust mirrors, change gears, reverse),
- Seeing and reacting (for example, focusing on the road, not the controls, and mirror usage).
- Step two, ‘Moving into traffic’, involves driving in light and moderate traffic, and recognising and reacting to potentially hazardous driving situations. The checklist is divided into:
 - Driving skills (which is again divided into light and moderate traffic), which includes adjusting speed in traffic, obeying traffic signs/lights.
 - Seeing and reacting, which includes watching several cars ahead, and checking blind spots.
- The third step, ‘Gaining Experience’, includes seeing and reacting to hazards, using a log book for recording practice experiences, and using suggestions from a professional driver trainer (if applicable) to serve as a basis for future practice sessions. The checklist:
 - Provides a list of the most common crashes that young drivers are involved in (for example, rear end crashes, single vehicle crashes, and crashes involving pedestrians), and
 - Lists skills aimed at avoiding these accidents (slowing down at curves, maintaining a safe following distance).
- The fourth step, ‘Going Solo’, is aimed at promoting more general supervision beyond the Learner phase of licensure, including driving with the Provisional licence holder at first, discussing peer pressure and what can be done to avoid taking risks, and pointing out the increased risks involved in night-time driving.

5.5 SOUTH AUSTRALIA

5.5.1 Licensing system

The minimum age to obtain a Learner permit in South Australia is 16 years. The Learner permit can be obtained by passing a road law knowledge test. There is no minimum holding period and a fully-licensed supervisory driver who is restricted to a BAC limit of .05 must accompany the Learner.

The minimum age to obtain an intermediate licence is 16 years 6 months. Similar to the ACT, there are two means to obtaining an intermediate licence. Applicants must either pass a one-hour, on-road practical test or complete CBTA. For the CBTA option, drivers must undertake training by an accredited driving instructor. The intermediate licence must be held for a minimum of 12 months.

A full licence can be obtained once the driver has turned 19, and, has observed the intermediate licence minimum holding period.

5.5.2 Resources provided by licensing agency

No resources were identified for drivers supervising a Learner in South Australia.

5.6 TASMANIA

5.6.1 Licensing system

To obtain a Learner permit in Tasmania, applicants may sit their theory and eyesight tests at 15 years 11 months of age, however, the permit cannot be issued until a minimum of 16 years of age. The minimum holding period is six months. A fully-licensed driver who has not had their licence suspended during the previous two years must accompany the Learner driver. Learners must complete a logbook demonstrating the accumulation of 50 hours of supervised driving.

In order to obtain an intermediate licence, drivers are required to pass a theory and on-road practical test in addition to providing a completed logbook. Similarly to the Learner permit, the tests can be conducted at 16 years 11 months of age, however, the licence cannot be issued until 17 years of age. Age based licence restrictions apply, whereby drivers under 22 years must hold the intermediate licence for three years. Drivers between 22-23 years must hold the licence until they reach 25 years of age. If aged 24 years or older, the minimum holding period is one year.

5.6.2 Resources provided by licensing agency

The logbook to record driving experience includes information for supervisory drivers. This brief outline includes basic information regarding requirements for supervisory drivers, and lists strategies to promote effective teaching (encourage driving in different situations when the Learner is ready, demonstrate new skills) and a positive experience (be patient, provide positive feedback). Unfortunately, the second section is geared toward Learners passing their test through the provision of practice tests and opportunities for supervisors to rate Learners' performance at the end of the session.

5.7 VICTORIA

5.7.1 Licensing system

Victoria has a three-phase GDL model – Learner, Intermediate Licence Phase, and Full Licence. Applicants for a Learner permit must be a minimum of 16 years and can only drive under the supervision of a driver who has been fully licensed for at least two years. The Learner permit must be held for a minimum of six months if the holder is under 25 years of age or for three months for those aged 25 or over.

Applicants for the intermediate phase, termed Probationary period, must be a minimum of 18 years and must hold this licence for three years.

Drivers achieve full licence status after three years as an intermediate licensed driver. Therefore, the minimum age for Victorians to obtain a full licence is 21 years.

5.7.2 Resources provided by licensing agency

Vic Roads, the Victorian state government licensing authority has developed a two-part *Novice Driver Kit* for beginning drivers when they obtain their Learners' Permit. Part one is a handbook entitled 'Road to Solo Driving'. It is designed to help beginning drivers, primarily those intending to get their Learner's permit or their Probationary licence to prepare for the challenges of driving, find out how to learn to drive, manage and reduce risks as a driver, understand the rules and responsibilities of driving, and monitor progress and driving experience.

Part two of the kit is a booklet entitled 'Getting there: From Ls to Ps'. It is designed to help beginning drivers, primarily those who have obtained their Learners permit, and their supervisory drivers to work together to encourage Learners to gain plenty of driving experience under safe conditions. The booklet is divided into three parts. Stage One – Starting Out, focuses on very basic vehicle control skills, providing advice about where and what to practice and includes advice for the supervisor in teaching these skills and in managing likely problems such as stress, frustration, and impatience. Stage 2 – On the Road, focuses on how to introduce the Learner into traffic. It provides advice about where to practice, and when to introduce the Learner into more complex situations as he/she gains more skills and confidence. Stage 3 – Beyond the Basics, is designed to be used in conjunction with a logbook and aims to encourage supervisors to provide opportunities for practice in as many and varied traffic situations as possible.

In addition to providing information about what skills a Learner needs to know and when and the best ways to practice these, the booklet provides information for supervisors about how to manage stress, impatience and frustration which are common problems for both Learners and their supervisors. Anecdotal excerpts from Learners and supervisors are used to deliver this type of information in a more interesting and reader friendly style than can be done by just listing the problems. The provision of a checklist at the end of each of the three Stages provides practical advice to supervisors about when they should introduce subsequent skill/s to the Learner. The booklet also provides information about the higher risks associated with young novice drivers relative to older drivers and explains why this is so. This helps place the importance of learning and managing young driver risks into context.

The Novice Driver Kit is available for purchase from any VicRoads Registration and Licensing office in Victoria. It is advertised electronically on the VicRoads' website.

Keys Please is a free 90-minute educational program for Learner drivers and their parents designed to introduce Learners to different driving skills and to help build positive partnerships between Learners and their parents during the early part of the Learner's driving career. The sessions are held at local schools. Information about *Keys Please* is available through the VicRoads website and is also advertised in free brochures which are available at any VicRoads Registration and Licensing office. More than 240 *Keys Please* sessions were held in 2003-04.

5.8 WESTERN AUSTRALIA

5.8.1 Licensing system

Western Australia has a four-phase GDL model; Learner Phase 1, Learner Phase 2, Intermediate licence, and Full licence.

Applicants for Learner Phase 1 must be a minimum of 16 years and can only drive under the supervision of a driver who has been licensed for a minimum of four years on the same class of licence as Learner Permit (i.e., manual or automatic licence). Applicants for Learner Phase 2 must be a minimum of 16 years and 6 months and can only drive under the supervision of a driver who has been licensed for a minimum of four years on the same class of licence as Learner Permit (i.e., manual or automatic licence). During this phase, Learners must have completed a minimum of 25 hours of driving experience which must be recorded in a log-book system and signed by their supervisor.

Applicants for the intermediate phase, termed Provisional Licence, must be a minimum of 17 years and must hold this licence for two years. Drivers can achieve full licence status at a minimum age of 19 years.

5.8.2 Resources provided by licensing agency

There are five different resources provided by the WA licensing authority, the Department of Planning and Infrastructure (DPI) to help beginning drivers and their supervisors during the learning process;

- Getting your driver's licence
- Drive Safe
- Drive Safe – A candidate's guide to the practical driving assessment
- Learner's Log Book
- Hazard perception test booklet and CD-Rom

Much of the material in these resources is designed to teach beginning drivers how to drive, provide them with information about road rules and to make them aware of their elevated crash risks and provide suggestions about how they can reduce these risks. Some of this information will be relevant and helpful for supervisors of Learner drivers, but the relevant sections for supervisors are covered in more detail in 'Behind the Wheel' (see below).

Behind the Wheel (Office of Road Safety)

Behind the Wheel is a training guide developed by the Office of Road Safety for Learner drivers and their tutors to help Learners to drive safely. Behind the Wheel is useful for all beginning drivers and their supervisors but is primarily aimed for beginning drivers at the Learner phase of licensure (i.e., L1 and L2) and their supervisors. It is recommended that the resource be used in conjunction with Drive Safe and the Candidate's Guide to Passing the Practical Driving Assessment.

Behind the Wheel comprises a section for Learners and a section for tutors of Learner drivers. The section for Learners provides information about:

- Learning vehicle control skills
- Learning traffic skills
- Learning safety skills

- Learning advanced safety skills including how to detect and respond to hazards

It also provides some advice about how to select a supervisor and how to work well with them during the learning process.

The section for tutors provides several different types of safety information including:

- Risks such as the higher risks faced by drivers during the Provisional stage of licensure and the relatively low risks to Learners whilst they are under supervision. Also described are the sorts of factors that contribute to increased crash risk such as passengers, fatigue, lack of practice, night time driving etc.
- Supervision rules such as BAC limits for supervisors and the type of licence and level of experience of the supervisor
- The role of being a supervisor including how to teach, be a good role model, provide guidance and feedback about performance, be patient and supportive, and monitoring and keeping a record of the Learner's progress.

Also included are suggestions about where to practice, including optimal practice conditions such as no distractions, quiet area etc. A checklist of particular skills that should be taught, the order in which to learn different skills – i.e., start with turn engine on and off etc, and guidance about when the Learner is ready to tackle progressively more complex skills are also given.

There is a section that provides information about the risks associated with young drivers whilst they are on their Provisional licence. The section has headings for each type of risk – for example, speed, fatigue, passengers, peer pressure, etc and then discusses the facts associated with each one. At the end of each section, guidelines are provided about what to discuss and how supervisors should discuss these problems with Provisional drivers to protect them from the risks.

The resources developed by DPI that are aimed primarily for beginning drivers (the two Drive Safe booklets, the log book and the Hazard Perception Test booklet and CD-Rom) can be purchased at any WA Licensing Centre. These resources also come in alternative media (audio-tape, CD-Rom) and can also be downloaded free of charge from the Internet.

'Behind the Wheel' can be purchased as a booklet from any WA Licensing Centre and can also be downloaded free from the Internet.

5.8.3 Other resources

Road Aware Drivers

The Road Aware program commenced in January 2004 with three overlapping projects targeting three age groups of road users and their parents/carers (Zines, 2003):

- Road Aware Parents: 0-4 year olds.
- Road Aware Kids: 4-14 year olds.

- Road Aware Drivers: 15-20 year olds.

The project was strategically aligned with an existing WA School Drug Education Project (SDEP), as recommended by Elliott (2000).

The Road Aware Drivers program incorporates both a pre-driver education component and a parent workshop component, in addition to a Learner driver assistance scheme. It is available to all (public and private) secondary schools across the state on a voluntary basis. A pilot program was trialed in about 20 high schools throughout WA in 2003 and was subsequently revised. Full implementation of the program is expected to begin during August 2004. It is hoped that 90-100 (about 50%) of schools will be reached by end June 2005.

The program receives funding from the Road Trauma Trust Fund, the Insurance Commission of WA (ICWA) and the Catholic Education Office. Representatives from these sit on the Management group, that is, representatives from the Office of Road Safety (on behalf of the Road Safety Council and ICWA) and the Catholic Education Office, in addition to representatives from the Department of Education and Training, the Association for Independent Schools, the Department of Health (for SDEP) and the Drug and Alcohol Office (for SDEP).

Parent workshop

The inclusion of a workshop for parents of participants also aims to increase the amount and variation of supervised driving achieved by the Learner through educating and encouraging parents of the benefits of this experience. A key component is providing parents with tools to demonstrate that 120 hours is not a particularly difficult target. This includes marking a calendar with regular weekly activities, such as school and sports runs. Parents quickly see that many hours can be accumulated with these everyday driving activities, such that there is not a large burden on parents to devote a large number of hours each week solely to this task.

Safety tips for parents/Co drivers on novice drivers

The Driver Trainers Association of Western Australia has also produced a booklet to provide safety tips for parents as supervisors of novice drivers. The booklet provides information about safe driving techniques

5.9 UNITED STATES

The following nationwide resources were identified:

- Helping your teen become a safer driver (American Academy of Child and Adolescent Psychiatry) www.aacap.org
- Teen Driver - A family Guide to Teen Driver Safety (National Safety Council).
- Get Road Ready – A parent’s guide to safely ease teens into driving www.roadreadyteens.org
- The Parent Survival Kit and related documents – www.DriveHomeSafe.com

- Family Guide to Teen Driver Safety – National Safety Council.

The National Safety Council has published a magazine titled “Teen Driver: A family guide to teen driver safety”. It is a comprehensive 68-page magazine written by expert road safety researchers and is based on the principles of graduated driver licensing.

In addition, the following state-based documents were identified:

- PENNDOT Tutor’s guide – how to steer them to safe driving (Pennsylvania Dept of Transport);
- Parent-Teen Training Aide (California Department of Motor Vehicles).

5.10 UNITED KINGDOM

The Royal Society for the Prevention of Accidents (RoSPA) has produced a document entitled “Safer Driving – Parents and Young Drivers”.

6.0 GAP ANALYSIS FINDINGS

This chapter presents an analysis of gaps in current resources that will provide direction for further work in this project and in the general area of parent resources for young drivers. The gaps are described under the following headings:

- Aims
- Content
- Distribution and availability
- Knowledge about effectiveness

6.1 AIMS OF THE RESOURCES

The resources currently available for parents appear to have two general goals

1. To help parents to increase the amount and nature of supervised driving by Learner drivers
2. To help parents to reduce risks in unsupervised driving (mainly by new Provisional drivers)

In general, Australian resources appear to focus on the first of these, and US resources on the second. Thus, there appears to be a gap in Australia in the area of parent resources to help reduce risks in unsupervised driving. Given that there are currently no peer passenger or night-time driving restrictions for Probationary drivers in any Australian jurisdiction, this is an area where parents may be able to implement risk reduction measures that have proven to be effective but have not yet received the necessary political support for implementation.

6.2 CONTENT

The content that parents of Learner drivers and of newly-licensed Probationary drivers need to know is summarised in Table 4.1. The examination of the current resources in Chapter 5 has identified that most resources for parents of Learner drivers cover the aspects related to supervision and graduating driving complexity adequately. Very few of the resources for parents of Learner drivers cover vehicle recommendations. Some of these resources mention peer passenger and night-driving risks in unsupervised driving but the timing of the material (in the Learner phase) may mean that this information is no longer salient after the licence has been obtained. There is very little in most resources about the factors moderating the effectiveness of driver training for newly-licensed drivers (and many parents consider these courses to be beneficial).

6.3 DISTRIBUTION AND AVAILABILITY

Most of the Australian resources focus on the Learner driver, and their methods of distribution are based on access by the Learner driver. Thus the materials often include exhortations to the Learner to share the material with their supervisor. For example, the

front cover of *Getting There: From Ls to Ps* states that it is “A step by step guide for you and your supervising driver” and the back cover has the reminder “Don’t forget: this book is for you and your supervising driver. Share it with them and motivate them to let you drive”. Methods of distribution include licensing offices, young driver-orientated websites of road safety agencies and schools. Thus, there appears to be an onus on the young driver to get the material to their parents, rather than parents being marketed directly. Thus, some parents who could benefit from the resources may not know of their existence or may not receive the resource from their young driver.

Exceptions to the general focus on the Learner driver include several of the ACT Road Ready books *Preparing Your Pre-Learner for Driving*, *Supervising a Learner Driver* and *Learning Through Practice* and the CARRS-Q booklet *A practical guide for tutors of Learner drivers*. The latter booklet is also of interest in that it is one of the few Australian resources that promotes more general supervision beyond the Learner phase, including driving with the Provisional licence holder at first, discussing peer pressure and what they can say to avoid taking risks, and pointing out the increased risks involved in night-time driving.

There was little information available regarding the extent of availability of most resources to parents (e.g. how many copies were distributed, what percentage of parents accessed the material, what percentage of parents used the materials). Specific questions to organisations responsible for particular resources generally did not produce any responses. There is little known about the accessibility of the resources to rural people, the disadvantaged, and people who do not have access to the Internet.

6.4 KNOWLEDGE ABOUT EFFECTIVENESS

Very little is known about the effectiveness of current resources in improving the safety of novice drivers. There are some completed evaluations and others underway that seek to assess the changes in the amount of supervised driving by Learners as a function of changes in requirements (e.g. mandated minimum hours of supervised driving and logbooks) but these evaluations do not specifically measure the effects of the resources. One of the difficulties in evaluating the effects of a particular resource is the wide range of other resources which parents and young drivers are exposed to.

There have been widespread process evaluations that have measured the uptake of resources and parents’ and young drivers’ views on the style and content of the resources both in Australia and in the US. These evaluations have identified potential improvements and areas of concern.

The overall lack of evaluations of the effects on crashes makes it difficult to assess what works and what does not. The evidence is that the overall mix of resources may be contributing to increases in the amount of supervised driving, however more definitive conclusions are not possible.

6.4.1 Timing of interventions

It is not yet known what is the most effective timing for delivery of materials to parents. Would it be most effective to deliver these materials somewhat before their children are learning to drive, when they are learning to drive, or just after they have become licensed? It is important to consider how parental influence might affect the changing nature of certain driving risks that accompany different stages of adolescence.

6.4.2 Content of interventions

Beck et al (2003) ask whether interventions should be targeted towards making parents better driving instructors (teaching vehicle control skills and risk perception) or making them more adept at setting driving restrictions, including monitoring their young drivers and modifying their driving privileges. Much of the research into parental involvement in novices' driving behaviour focuses on the latter. The assumption is that once new drivers have mastered basic driving skills through professional or lay instruction, real benefits are derived from the experience they acquire on their own. Such experience is best gained under relatively reduced risk conditions (without peer passengers, on lower speed roads, not late at night etc), and then as driving experience, skills and overall maturity increase, so, too, may driving privileges. This suggests that once novices have reached the Provisional stage of licensure, parents may be largely irrelevant as instructors, with their primary role being one of establishing and regulating driving privileges only. Beck (2002) suggests that research should assess the extent to which parents might also benefit from information which enables them to teach advanced driving skills to their children and whether this results in any benefit to the novice driver.

7.0 POTENTIAL MEDIA, PROMOTION AND DISTRIBUTION

The usefulness of different types of media for a parent resource is discussed in this Chapter. Potentially the resource could be delivered as a package with components utilising different media, rather than a single medium. The choice of media is also related to the methods used for promotion and distribution.

7.1 MATCHING THE MEDIUM TO THE PURPOSE AND THE LOCATION

Potential media may depend on the purpose of that component of a resource package and where and how it will be used. The purposes include:

- Conveying information,
- Persuading parents and young drivers to change their behaviour,
- Recording behaviours.

Some components may be for use at home and others for use in the car. Clearly, a wider range of media is suitable for use at home than in the car. In addition, media to be used in the car should not add to driver distraction.

7.1.1 Media for conveying information

Most media can be used for conveying information. The traditional approach has been the booklet that is relatively cheap and portable and can be distributed relatively cheaply by mail. The design of booklets for parents may be different than the youth-oriented designs that have been developed for young drivers.

Websites can also be used for conveying information, given that Internet access is now quite common. The Internet may be more effective because it allows information to be delivered at home, on demand by the user and can be tailored to the particular needs of the family and also renewed and updated on a regular basis as new information becomes available. This method of delivery needs to be explored, in addition to other delivery channels to determine the extent to which children and their parents would use it.

Workshops for parents and their Learner drivers have been used to encourage participants to increase the amount and variation of supervised driving achieved by the Learner through educating and encouraging parents of the benefits of this experience. Workshops are relatively expensive per family reached compared to other media and often require volunteer input. Thus, not all parents may be able to be reached by a limited number of workshops.

7.1.2 Media for persuasion

The US Checkpoints program found that a short video that parents could watch in the licensing office or at home was a useful medium for persuading parents and their young drivers of the need to restrict exposure to high-risk driving situations when newly licensed.

Interactive websites where parents can assess risks or undertake other activities online may have promise in helping to engage them and increase the likelihood that the message will be persuasive.

Workshops may also help to persuade parents to implement behavioural changes.

7.1.2 Media for recording behaviours

Resources are likely to be more successful in maintaining behavioural change if they have a component for recording behaviour and perhaps checking the recorded behaviour against recommendations. A number of media have been used in resources aimed to increase the amount and variety of supervised driving experience by Learner drivers. These include logbooks, a calendar of driving activities, the Transport Accident Commission's "scratchy" card (very popular with young drivers) and workbooks.

7.2 FACTORS AFFECTING PROMOTION AND DISTRIBUTION OF THE RESOURCE

Process evaluations of current resources have identified that the uptake of a resource depends not only on the attractiveness of the resource once it has been accessed, but also promotion to encourage its access.

Efforts to improve child and adolescent behaviour via parent education programs have been difficult (Beck, Hartos & Simons-Morton, 2002). Parents are hard to reach and, given their busy lives, have little time for formal programs. School-based programs have certain advantages in that parents can be easily identified, their motivation to improve their children's school performance and behaviour should be high, and direct and indirect avenues for parent education are available. However, implementation of school based programs remains difficult and few have shown strong results. Population based programs are perhaps even more difficult to identify parents and deliver appropriate messages in a dose sufficient to cause an effect.

Parents of Learner and new Provisional drivers comprise only a small proportion of the population and belong to this group for only a limited time (perhaps up to three years). Thus, the membership of the target audience is continually changing. This suggests that the resource needs to be promoted and available constantly, but in a manner that is cost-effective. This rules out a single, high-profile launch and distribution effort.

Options for promoting the resource include:

- Linking to a well-visited website (e.g. the VicRoads Lsite or the RACV website)
- A connection to the licensing process (e.g. promoted and/or available at VicRoads Registration and Licensing Offices)
- Promotion and/or distribution in conjunction with an ongoing parent education program (such as *Keys Please*)

Opportunities to reach parents and their young drivers are limited as they are seldom together at the same time in a convenient location. As parents generally accompany their children when they apply for a licence, motor vehicle licensing centres would seem to be good places to introduce parents to these programs (Simons-Morton & Hartos, 2003).

However, there is also the possibility that targeting parents and their children for intervention at this stage may be too late, as expectations about driving privileges may have already been set. However, it is also possible that despite their time together while the novice learned to drive, parents and their children may not have discussed or come to an agreement yet about driving privileges.

If the content relates to both Learners and Provisional drivers, should it be delivered in one package or be in separate documents (and potentially distributed separately)?

8.0 RECOMMENDATIONS FOR MODEL RESOURCE

8.1 AIM OF THE RESOURCE

The model resource should aim to bring about reductions in the risks of newly-licensed Probationary drivers. While the initial emphasis of this project was on developing a resource for parents of Learner drivers, there is a wide variety of resources currently available for that purpose. Improvements to that material are certainly possible, but there is a greater need for a resource at the transition to unsupervised driving, where the crash risks are extremely high.

The model resource should aim to give parents a strategy and a framework for implementation of risk reduction measures, not merely information about the risks and ways of reducing them.

8.2 STRUCTURE OF THE RESOURCE

It is recommended that the resource have three components:

- Informing parents of the risks associated with unsupervised driving and the actions that can be taken to reduce these risks
- Persuading parents to take actions to reduce these risks
- Providing a framework for managing exposure to high-risk driving scenarios.

It is proposed that an adaptation of the Checkpoints program for local conditions would be the likely approach. The overall package is likely to include a combination of media.

8.3 DISTRIBUTION

Methods of distribution of the resource will need to be assessed in a pilot stage, which includes discussions with road safety agencies and other interested stakeholders. It is proposed that the following options be assessed:

- Linking to a well-visited website (e.g. the VicRoads Lsite or the RACV website)
- A connection to the licensing process (e.g. promoted and/or available at VicRoads Registration and Licensing Offices)
- Promotion and/or distribution in conjunction with an ongoing parent education program (such as *Keys Please*)

8.2 RECOMMENDED CONTENT

The parent resource should focus on the following issues:

- Novice driver crash risks

- Limited effectiveness of driver training programs
- Peer passenger risks
- Night-driving risks
- Vehicle recommendations

Other issues such as distraction, alcohol and other drugs and fatigue could also be covered in the parent resource.

The resource should avoid using misleading and unpopular language such as “lessons” and “curfews”.

8.3 TARGET AUDIENCE

The target audience is parents/guardians who are concerned about the safety of their newly-licensed Probationary drivers. The parent resource will be a voluntary measure and, as such, it is expected that not all parents will be sufficiently motivated to use it. It is likely that parents whose children are living at home and driving a car belonging to the parents will be better able to benefit from the package than those parents whose children have left home or drive their own car.

Although it is initially assumed that development and trialling of the parent resource would occur in Victoria, it is possible that implementation could be more effective in States where the licensing age is lower (e.g. newly-licensed drivers are 17 years old rather than 18).

8.4 NEXT STEPS

The next steps are to develop and pilot a draft parent resource with the characteristics mentioned above. If implemented, then evaluation and revision would be later steps in the quality improvement cycle.

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