

Child Road Safety

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Authors		Acknowled	gements	
Kerryn Alexander Helen Bartley Tim Davern		Melinda Spiteri	-	
Performing o	rganisations			

Kerryn Alexander Research Bartley Consulting

Abstract

Child road safety broadly covers the areas of child restraint use, driveway safety, bicycle and scooter riding and pedestrian skills. While parents play a critical role in ensuring the safety of their children and have a responsibility to educate their children about safe road safety practices, there may be inconsistencies between the perceived and actual injury risks to children. This project aimed to determine parents' current knowledge on child road safety and identify those aspects of child road safety that are least well understood.

The research found that awareness and compliance with the law was relatively high for all parents, however there was some evidence that compliance with the law diminishes as children become older. This highlights the importance of parents knowing when to transition children into the next size restraint. Parents with babies were also most vigilant with having restraints professionally fitted and regularly checking they are using the restraint correctly and appear to be less concerned with child restraint related issues as children get older. Very few children aged 7 and younger were walking or cycling independently, with parents considering the ideal age for independent travel being between 9 and 12 years. These issues appear to be exacerbated in culturally and linguistically diverse communities.

Keywords

Child safety; child restraints; child car seat; children; fatality; injury, rearward facing; forward facing; booster seat; car; walking; cycling; independent travel

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Executive Summary

Many children are involved in motor vehicle incidents, pedestrian incidents and driveway run overs each year making child road safety a significant concern to parents. Several issues need to be addressed to ensure that children are safe when travelling in vehicles, such as ensuring that children are travelling in a correctly fitted child restraint that's appropriate for their size. Child safety around the road environment is also important. This includes awareness of driveway safety, helmet use, separating play areas from the road environment and encouraging parents to model and teach children safe pedestrian practices.

This report aims to determine parents' current knowledge on child road safety and identify those aspects of child road safety that are least well understood. The research explored awareness of issues surrounding the choice and installation of appropriate child restraints and the decision-making process when transitioning to an adult seatbelt. Independent walking and scooter/ cycling behaviour was also explored along with further considerations for culturally and linguistically diverse (CALD) groups.

The research found that most parents were aware and compliant with the Victorian child restraint laws. In particular, all parents with babies aged less than 6 months were aware that they needed to travel in a rearward facing capsule or car seat. However, compliance and awareness of the law appears to diminish as children become older and transition into larger sized restraints. Most of the decisions to transition children into larger restraints are a result of parental assessment (e.g. is the child old enough, the right height, weight or size?), rather than explicitly moving children into next sized restraints because it was legal to do so. Additionally, almost all children travelling in child car seats were using seats that were obtained less than seven years ago, i.e. after the more stringent Victorian child restraint legislation came into effect.

Undertaking online research prior to obtaining a restraint was common, with parents preferring to visit child restraint manufacturer and retailer websites. Fewer parents reported visiting other websites that contain general child restraint related information such as Kidsafe Victoria, VicRoads, Choice Magazine, the Child Restraint Evaluation Program website (CREP) (childcarseats.com.au), and RACV. This may suggest parents are searching for restraint specific information prior to purchasing. Parents may also be looking for confirmation the child restraint they are considering purchasing meets the Australian Standard, as compliance with the Australian Standard was reported to be very important to parents.

Around two thirds of parents reported installing the restraint themselves, although this was more common for parents with babies (i.e. using rearward facing restraints). It was rare for parents to have booster seats professionally installed. In terms of checking that the restraint is being used correctly during every trip, parents are quite vigilant in checking that the harness buckle and/or seatbelt are properly fastened, but less attentive to other features such as checking the straps are not twisted, the shoulder pads are correctly placed, and the tightness of the straps. It is interesting to note that, as with many issues identified in this research, parents become less attentive to checking restraints are being used correctly as children get older.

Few parents of children aged 7 years and younger reported that their children walk or cycle alone, with independent travel increasing among children aged 7 to 12 years. Parents generally use their own judgement to determine when their child is ready to travel independently, and prepare the child by accompanying them and talking about road safety, and by allowing the child to travel very short distances close to home. Generally parents tended to believe that an appropriate age to walk or cycle independently is between 9 and 12 years, depending on multiple factors including the child's maturity, the busyness of roads, and the number of crossings.

There is a belief by many newly arrived migrants, particularly refugees, that Australia 'over-reacts' in relation to road safety and is over-protective towards children. For example, it appears that within some CALD communities it is less common for parents to prepare their children for independent travel, and that they may be required to walk or cycle to school independently because there are no other options (e.g. parent needs to work and cannot supervise the child). It is also important to note that many refugees have not driven a car in their country of origin and are therefore unaware of laws and road safety issues. This also makes it difficult for road safety agencies to convey the message that child road safety is important.

It is interesting that despite parents with babies having the greatest access to information, the highest levels of knowledge (i.e. laws and recommendations), and the highest levels of compliance, they also have the greatest demand for information. However, it seems the real area of need is for parents of toddlers and older children, who no longer have information provided directly to them, have lower levels of awareness of laws and recommendations, and are less compliant. Incorrect use and fitment of child restraints is almost always a result of lack of parental awareness, hence the best way to improve child road safety is by providing more accessible and targeted information and advice.

This research has identified the following opportunities to improve parents' understanding of road safety issues, in particular their understanding and application of child restraint laws and best practice recommendations.

- Develop one simple official Victorian child road safety website. The website could be developed jointly by the Victorian road safety partners. It would need to be endorsed by government agencies for credibility.
- 2. Provide prompts to parents outlining key road safety information as children achieve key milestones (e.g. certain ages). Prompts could be in the form of an email or letter from government, childcare, kindergarten or school and could direct parents to the website.
- 3. Information categorised by the child's age group would be of most assistance to parents.
- 4. The website needs to provide the following clear and simple information about child restraints, including:
 - Laws
 - Best practice guidelines
 - 5 step test for moving to an adult seatbelt
 - · Choice and safety ratings
 - · Installation and lists of installers
 - Ongoing maintenance and checking
- 5. The website could also provide information about when children are ready to walk and cycle independently and how to prepare them.
- 6. Provide information about correct choice, fitment and maintenance of child restraints for grandparents, e.g. through publications and websites for older people.
- 7. Provide information that parents can show children aged 4+ years about use of child restraints, to counteract children's demands not to use a booster seat.
- 8. Consider providing key information about child restraint best practice guidelines in newspapers directing readers to the website.

- 9. Provide child restraint checking days and services that also provide information about ongoing checking and maintenance.
- 10. For CALD communities, focus on face-to-face presentations with interpreters, including restraint-checking days.

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Introduction

The issues associated with child road safety are broad. Child road safety covers the use of restraints and seatbelts when transporting children in a motor vehicle as well as other aspects of safety in and around the road environment. These other aspects include: use of helmets when riding a bicycle or scooter, and safe riding and pedestrian skills. Parents play a critical role in ensuring that their vehicles are correctly fitted with the appropriate restraint or booster seat and their children use these correctly; they also need to ensure that children wear correctly fitting helmets when cycling or riding a scooter or other wheeled toy. Parents also have a responsibility to educate their children about safe pedestrian practices.

In 2007, RACV commissioned research identified a number of issues affecting the correct use of child restraints by parents. While parents were generally aware of and complied with guidelines for transporting infants in rear facing restraints and then graduated to a forward facing child seat between six and 12 months, compliance reduced as the as the child got older. This was mainly due to a combination of factors such as lack of information, misinformation, and parents conceding to the child's wishes based on a perception that 'booster seats are for babies'.

The 2007 research also found that some parents obtain their child restraints from friends or buy them second hand and most install capsules or rearward facing car seats themselves, all of which can affect the child's road safety. Since the 2007 research, new legislation came into effect in 2009, requiring all children less than seven years of age to be seated in a correctly fitted child restraint or booster seat. All restraints sold in Victoria must comply with Australian/New Zealand Standard AS/NZS 1754.

1.1 Project aim and scope

The specific objectives of this project were to:

- Determine the current knowledge amongst parents about child road safety and to gauge which issues are least well understood.
- Gain an understanding of parents/caregivers' awareness of issues surrounding the choice and installation of appropriate child restraints.
- Identify child restraint use, from birth to 12 years and the decision process parents use to transition to the next restraint type and to an adult seatbelt.
- Explore the age at which children begin to walk independently and any issues surrounding this.
- Identify and explore any special considerations that may be needed for CALD groups relating to child road safety (with organisations rather than parents).
- Determine how parents/caregivers would like to receive child road safety information.

1.2 Literature review

This section provides key issues identified from a brief literature review. A summary of relevant websites, resources for parents, recent relevant research, and references can be found in Appendix A, B, and C.

The purpose of the brief literature review was to summarise recent literature on child road safety issues in Australia since 2010, particularly in Victorian context, in order to:

- · Identify any new and emerging issues in child road safety
- · Identify current issues to be addressed in the focus groups and survey

1.2.1 Child restraint laws and recommendations

There are laws for the type of restraints children of a certain age need to travel in:

- Birth to 6 months must travel in a rearward facing restraint
- 6 months to 4 years must travel in a rearward or forward facing restraint

- 4 to 7 years must travel in a forward facing restraint or booster seat
- Older than 7 years must travel in a booster seat or adult seatbelt (RACV, 2016)

While the law specifies the minimum, it is recommended to only move a child to the next type of restraint once they outgrow their current restraint. There are also laws on where children can sit in a car:

- · From birth to under 4 years children must travel in the back seat in cars with two or more rows of seats
- From 4 years to younger than 7 years children can only travel in the front seat if all available back seats are being used by younger children.
- · From 7 years and older children can legally travel in the front seat

While the law specifies a minimum, it is recommended to only allow children to travel in the front seat when they are older than 12 years of age.

1.2.2 Australian Standard for child restraints used in motor vehicles

The law requires parents to only use child restraints that meet the 2004, 2010 and 2013 versions of the Australian/ New Zealand Standard: Child restraint systems for use in motor vehicles (AS/NZS 1754). These restraints display an Australian Standards approved sticker. Standards are published documents that set out specifications and procedures designed to ensure products, services and systems are safe, reliable and consistently perform the way they are intended to. They establish a common language that defines quality and safety criteria. AS/NZS 1754:2013 is the current version and was published on 7 June 2013 (CREP, 2014).

1.2.3 Best practice guidelines for child restraints

The National Guidelines for the Safe Restraint of Children Travelling in Motor Vehicles were developed by KidSafe and Neuroscience Research in 2013. The guidelines provide clear advice on the optimal use of child restraints, booster seats and seatbelts to minimise the risk of injury to children in a crash. While the law sets out the minimum requirements when transporting children, more can be done above and beyond the law to reduce and avoid injury to children travelling in cars.

1.2.4 Key issues in relation to child restraints

Previous research has shown that if a child uses the most appropriate restraint for their size, and uses it correctly, their risk of serious injury in a car crash is greatly reduced (Brown, McCaskill, Henderson & Bilston, 2006). Incorrect or inappropriate use of a child restraint can increase the risk of injury to the child in a crash by up to 7 times (Brown & Bilston 2006). It is interesting to note that best practice child restraint use is low in Australia, particularly among lower socio-economic groups (Keay et al, 2013). On the other hand, correct use of restraints has improved post legislation in lower socio-economic groups in Sydney, but has not changed among the broader Australian population. This may be due to greater efforts on information campaigns in these areas (Brown et al, 2013).

A further issue highlighted in previous research has also found that a high proportion of children graduate prematurely to an adult seat belt. This is most common in children aged between four and eight, and can include children moving straight from a forward facing restraint to an adult seat belt, i.e. missing the booster seat stage entirely (Koppel et al, 2013a, 2013b, 2013c; Neuroscience Research Australia, 2016).

Furthermore, confidence in knowledge of child restraints does not necessarily translate into correct usage (Koppel et al, 2013a, 2013b, 2013c), as restraint fitting studies have shown that more than 70% of restraints are incorrectly used, including twisted and incorrectly adjusted straps and seatbelts (Koppel et al, 2013b). Other research has shown that more than half of parents are also not tightening or untwisting the harness, not adjusting the restraint properly as the child grows, or not having it installed properly in the car (Neuroscience Research Australia, 2013b). Misuse is also greatest for convertible restraints during the first six months (87%) (Koppel et al, 2013b).

Research that is currently been undertaken is investigating how the design of restraints influences whether children use them properly, and also how the labelling of child restraints could be improved to make it easier for parents to use them correctly. Other research is exploring how children sit in their restraints throughout the journey, and whether there is an increased risk of injury in the event of a crash when a child is not sitting properly (i.e. still and upright) when travelling in a restraint. This work is based on research that has concluded the amount of freedom allowed by restraints is likely to affect the amount of protection provided to the child (Charlton et al, 2010).

1.2.5 Child road deaths and hospitalisations in Australia and Victoria

The Road Trauma Australia Statistical Summary (2014) from the Department of Infrastructure and Regional Development, Bureau of Transport, Infrastructure and Regional Economics, identifies that in 2014, for children under 16 years, there were 15 deaths in Victoria and 65 Australia-wide. While these statistics show a general downward trend over the previous ten years, deaths in Victoria increased from 8 in 2013.

Of the 65 deaths in Australia, the majority were passengers in vehicles (63%) or pedestrians (26%). In 2014, fatalities per 100,000 were 1.3 overall, 1.2 for males and 1.4 for females, although the trend in previous years was higher for males. In 2012 in Australia, 3077 children were hospitalised as a result of road trauma, with a downward trend since 2008.

1.2.6 Child pedestrian and cycling trauma in Victoria

Between 2000 and 2010, there were 8,178 police-reported pedestrian serious casualties in Victoria, of which 1,514 (19%) were children aged 17 years and under. Children aged 13 to 17 years are at high risk, compared with younger age groups of children, but at lower risk than adults aged 18 years and over (Oxley et al, 2012). Oxley et al (2012) found that boys were at higher risk of fatal or serious injury in all age groups, compared with girls, but particularly so for younger age groups up to 12 years of age where boys comprised approximately 65% of serious casualties.

Crossing the road is the most problematic movement for child pedestrians in all age groups, as the majority of child pedestrian serious casualties occurred on the road where children were attempting to cross and were hit by either a nearside or far side approaching vehicle. Younger children were more likely to be involved in collisions when emerging from behind parked vehicles onto the path of an oncoming vehicle (Oxley et al, 2012).

More recent data shows that between 2010 and 2014 in Victoria, there were a total of 203 pedestrian fatalities, of which 16 (8%) were children aged 17 years and under. There was a higher proportion of serious injuries (i.e. TAC claims involving hospitalisation) during this time period, with children under the age of 17 years making up 15% of the claims involving hospitalisation.

Children make up a smaller proportion of cycling serious injuries and fatalities. Specifically, between 2010 and 2014 in Victoria there were 39 cycling fatalities, 2 of which were children aged between 5 and 15 years (5%). Additionally, children aged less than 17 years made up 119 of the 1819 TAC claims involving hospitalisation (6%).

1.2.7 Parents, beliefs, attitudes and behaviour

Victorian survey findings (Muir et al, 2010) indicate parents have a generally positive attitude to children's road safety and some understanding of the important role that parents play in protecting and teaching children road safety. Interestingly, 96% of parents indicated that they thought their own driving behaviour would influence their children's behaviour on the road through role modelling.

The average age at which parents believe children can cross the road unsupervised is around 10 years. Similarly, the average age at which parents believe children can ride a bicycle unsupervised is 10 years. Ninety percent of parents reported that their children always wear a helmet when riding a bicycle. Despite having positive attitudes, these do not necessarily translate to behaviour, with some parents less involved in their children's traffic education than they could be.



The methodology involved:

- Six depth telephone interviews with stakeholders from organisations that work with child road safety in Victoria:
- Four focus groups of parents (mainly mothers, but including two fathers and one grandfather) with the groups defined by child's age.
- An online survey with 484 parents of children aged up to 12 years.

2.1 Stakeholder interviews

Telephone interviews were conducted with representatives from six organisations: VicRoads, Transport Accident Commission (TAC), Kidsafe, Early Learning Association Australia (ELAA), Migrant Information Centre – Eastern Melbourne/Box Hill, and Diversitat – Geelong.

The key purposes of these interviews were to:

- Obtain a high level understanding of the key current issues in relation to child road safety.
- Assist in the development of the discussion guide for the focus groups and survey questionnaire.
- Identify relevant recent literature and resources for the literature review.
- · Identify any current and recent research projects.
- Identify and explore any special considerations that may be needed for CALD groups relating to child road safety.

2.2 Qualitative research

Four focus groups of six parents (including one grandparent) were conducted with the groups defined by child's age as follows:

- 0-12 months
- 1-3 years
- 4-7 years
- 8-12 years

Consideration was given to defining the focus groups on the basis of various children's age splits, geographic location and parents' socio-economic status. The above child's age splits were considered to provide the maximum information into the type of child restraints used at various ages and the age and reasons for graduation to the next restraint type.

The focus groups were held at a café in Northcote and included parents from a range of occupations and suburbs, including Northcote, Thornbury, Preston, Reservior, Moonee Ponds, Kew and Hawthorn. While the majority of participants were mothers, two fathers and one grandfather attended. Participants were recruited via social networks including Facebook, and fliers distributed through primary schools, childcare centres, cafes and shops. Participants received a cash incentive of \$50 and morning tea.

2.3 Quantitative research

The purpose of the quantitative stage was to measure and prioritise the issues identified in the qualitative research, with the following objectives:

- Measure awareness (knowledge) of child road safety among parents, and establish the extent of understanding about child road safety issues to confirm which issues are least well understood.
- Measure the extent of understanding of issues associated with the choice and installation of child safety restraints for children aged 0 to 7 years.

- Measure the extent of use of child restraints for children aged 7 to 12 and confirm from the qualitative research the decisions associated with transition to an adult seat belt.
- Quantify the most common age when children begin to walk and/or cycle independently and confirm from the qualitative research the significance of issues associated with this.
- Establish parents' preferences for receiving child road safety information.
- The quantitative stage involved an online survey of parents with at least one child aged 12 or under. The survey was conducted using an existing online panel accessed through Stable Research.
- Survey participants were asked to focus on how their youngest child aged 12 or under usually travels in a car and for parents whose youngest child was aged at least 3, their youngest child's independent travel.
- Between Friday 11 March and Thursday 24 March 2016, a total of 484 eligible parents completed the online questionnaire.

Table 2.2

Questionnaire completion methodology by segment

Segment	No.	Percentage of total sample
TOTAL SAMPLE	484	100%
Parents whose youngest child is aged up to 6 months	29	6%
Parents whose youngest child is aged >6 months up to 4 years	195	41%
Parents whose youngest child is aged >4 to 7 years	113	24%
Parents whose youngest child is aged >7 to 12 years	147	31%
Parents born in an English speaking country	417	87%
Parents born in a non-English speaking country	67	13%
Melbourne parents	423	88%
Regional Victorian parents	61	12%
Parents who have not completed tertiary education	223	46%
Parents who have completed tertiary education	261	54%

Research Findings

3.1 Key findings from stakeholder interviews

3.1.1 Overview

Child Road Safety policy, resources and information in Victoria are provided by a number of agencies working cooperatively. These include:

VicRoads	Together with other partners, develops child road safety policy, programs and resources and funds program delivery.
TAC	Together with other partners, develops child road safety policy, programs and resources and funds program delivery.
RACV	Together with other partners, develops child road safety programs and resources. Provides Restraint Fitting services.
Kidsafe	An independent, non-profit, foundation dedicated to the prevention of death and injury to children. Provides information to families about child restraints and other child road safety issues and has received funding from government (TAC and VCRSPP) and non-government agencies to provide child restraint information, child restraint fitting education sessions for staff of community organisations and free checking days for the community. Provides online Restraint Fitter database.
Early Learning Association Australia	The peak organisation representing the voice of parents and service providers working to deliver high quality early learning programs to all children. Funded by VicRoads to deliver the Starting Out Safely program to early childhood educators of young children aged up to six years including child restraint information sessions to Maternal Health Nurses, Family Day Care and early childhood educators and CALD communities and organisations working with and transporting children.

3.1.2 Child restraints: issues, information and resources

The stakeholder interviews identified that most parents' concerns and questions about restraints are associated with when to transition to the next restraint type. In particular, Kidsafe identified the top five questions about restraints from parents based on phone calls they received:

- What restraint should my child be in?
- Where can I get my restraint fitted and how much will it cost?
- · Use of harnesses with booster seats
- Use of booster cushions (especially grandparents)
- · How to fit three restraints in back seat of a car

Restraint fitting

The stakeholders reported that parents are often anxious about how to fit child restraints correctly. Stakeholders are concerned that the manufacturer's instructions are too complex, and that better fitting instructions should be developed for parents, including instructional DVDs.

Restraint checking sessions have been run in the past, which found that 70+% of restraints are incorrectly fitted (straps not connected, anchor points removed) or fitted correctly but not adjusted as the child grows. Some retail stores selling child restraints arrange for "professional fitting", however there is some concern about the knowledge of some fitters recommended by stores. This is in part as there is no mandatory training for restraint fitters. However, some organisations have their own restraint fitting training and services:

- RACV has a network of fitters which is provided on its website.
- Australian Child Restraint Resource Initiative runs courses for restraint fitters.
- Kidsafe has a list of child restraint fitters fitters apply to be included and must have completed the ACRI course.

Choice and transition

There are considerable resources (online, video, audio, hard copy brochures) provided by all stakeholder organisations interviewed in relation to the selection of restraints and when to transition to the next restraint. Stakeholders report that parents tend to follow legislation rather than best practice. For example:

- Transition to adult car seat at age 7 in accordance with legislation need more understanding of height guidelines and better promotion of five point test for transition from booster to adult car seat.
- Allow child to sit in front seat at age 7.

Use of second hand child restraints is not encouraged due to lack of information about the restraints history and whether it has been involved in a crash. Stakeholders reported awareness of two programs to avoid use of unsafe restraints:

- St Kilda Mums donations of second hand products for people who can't afford new have strict criteria for second hand restraints.
- A program is being set up through local government to collect second hand restraints to prevent re-use, including people taking restraints from hard rubbish collection.

3.1.3 Children walking and cycling independently: issues, information and resources

In Victoria, child road safety policy and programs are based on early learning best practice principles. It is Victorian government policy to encourage children to be independent according to the National Quality Framework in education, which aims to provide children with tools and abilities to manage their own world rather than to follow rules (such as look left, look right).

VicRoads policy is to slow vehicle speeds around schools to 40km/h or 30km/h to allow children to walk and ride safely to school. Stakeholders reported that parents want guidance on when children are capable of travelling independently. The research suggests that age 10 is generally when parents allow their child to walk independently in Australia. Parents tend to only think about helmets for bikes, not scooters, skateboards and other wheeled toys.

3.1.4 Particular issues for CALD groups

Agencies such as Migrant Information Centre and Diversitat provide services to migrants, mainly refugees, during the first five years of settlement in Victoria. There is a belief by many newly arrived refugees that Australia 'overreacts' in relation to road safety and that we are over-protective towards children (e.g. in terms of supervision of walking to school, using pedestrian crossings, road rules).

Many refugees have not driven a car in their country of origin and are therefore starting from the beginning in relation to driving skills, road rules, and general road safety. A high level of driving unlicensed exists due to necessity (limited public transport in outer suburbs), an inability to afford lessons, and lack of understanding of the Australian/ Victorian driver licensing system (e.g. some think a learner permit is a driver licence, and previous experience in their country of origin that a driver licence can be 'bought').

It is difficult to convey the message that road safety/child restraints are important. Even if the message can be conveyed that it is important to use a child restraint, it is difficult to explain things like legislation and when to transition to next restraint type.

A high level of use of cheap second hand child restraints exists, passed on from family to family, found in roadside hard rubbish collections. There is also a high level of incorrect use and fitting of child restraints.

Due to these issues, many parents are more likely to listen to the demands of a baby or child than to follow legislation (i.e. baby cries in rear-facing restraint, therefore early progression to forward-facing restraint). No particular issues were identified for people from particular countries/regions – the main refugee groups dealt with by stakeholders interviewed are from Afghanistan, Iran, Iraq, Syria, Pakistan, Myanmar (Burma), Congo, Sudan, Liberia.

A number of organisations run dedicated child restraint and road safety programs for CALD groups. For example,

Early Learning Association Australia (ELAA)

- Free child restraint training sessions for CALD organisations and their clients with interpreters. Written information provided in 22 languages.
- ELAA delivers the majority of child restraint training provided by MIC and Diversitat.

Migrant Information Centre Eastern Melbourne (MIC)

- Road safety Driver Education Program /Drive with Care manual (7, two hour sessions).
- Information about child restraints (safety standards and laws) is included but not a large focus. Manual needs updating.
- Driving Practice program a mentor program for people aged over 21 10 driving sessions are provided.
- Child Restraint Clinics fitters check child restraints and fix or provide advice on how the restraint can be fixed/ properly fitted. Very popular – suggested an information session on child safety could be a requisite for attending a clinic.
- Bike education with provision of second-hand bicycle for children aged 8-12 years.
- Pedestrian Safety for parents Pedestrian education for parents of pre-school children is being developed in partnership with ELAA.

Diversitat

- Safe Driving Program five-week program for people with Learner Permit (delivered by ELAA), including four free lessons includes one-hour presentation on child restraints (types, legislation and fitting) using multiple interpreters in different languages.
- Driving Practice program a mentor program for people aged over 21 10 driving sessions are provided.
- A child restraint fitting day was trialled, but had low uptake.
- Bike education year 7+ with provision of second hand bicycle and helmet.
- Pedestrian safety theoretical and practical walking sessions to increase awareness of correct use of footpaths and road crossings.

3.1.5 Best ways of providing information to parents

There appears to be a general move away from parents using brochures to preferring online resources. There is also a general view that 'the earlier the better' to reach parents with information and influence road safety behaviours and role modelling. For example, maternity hospitals and antenatal sessions appear to be a good way to target parents as early as possible. Parents are relatively good at trying to inform themselves via parent blogs and chat rooms. However, the risk of these sources is that misinformation may be spread.

CALD communities

Poor English proficiency and low levels of literacy in their own language has implications for provision of written materials. In addition, low levels of computer literacy and access to computers means that a focus on online information in generally inappropriate. It appears that the best methods for information delivery include:

- · Face to face education in own languages e.g. delivery of information sessions with interpreters.
- Use of video, audio, photographic and graphic materials rather than text.
- Partner with agencies where trust has been developed with CALD communities.
- · Capture at community events, e.g. after church

However, a key issue is how to reach people who don't attend community centres or participate in any activities.

Key findings from focus groups

4.1 Main road safety issues for parents

The discussions commenced by asking participants to talk about their main concerns in relation to their babies and young children being safe in and around cars. Issues associated with child restraints were the most prominent issues for parents of babies and children aged up to four years. In particular:

- Which restraint to get
- · How to know if the restraint is fitted correctly
- · Where to put the restraint in the car
- Moving child restraints between cars
- · Ensuring grandparents have a safe restraint

Of note, parents used the terms 'capsule' or 'car seats' to refer to child restraints, hence this terminology is used when reporting on parents' views and was also used in the survey.

For parents of children aged 4-7 years, additional road safety issues were:

- · Walking and cycling to school safely
- · Understanding when a child is ready to move into a booster seat, or adult seat belt

For parents of children aged 8-12 years, the key unprompted road safety issues were:

- Knowing when children are ready to walk and cycle to school independently
- · Concerns about traffic and speeding

Some typical responses around parents' main concerns given during the qualitative research included (further verbatim comments can be found in Appendix D):

That I've put in and adjusted their seat correctly so that they are safe (baby aged under 12 months).

The adjustments that are required (to the car seat) as they grow (baby aged under 12 months).

My biggest concern is car seats that haven't been fitted properly into the car (children 1-3 yrs).

4.2 How children currently travel in the car

Children under 12 months

All but one of the babies aged less than 12 months were still using a rear-facing restraint. One child had graduated to a front facing restraint (eight months) because the rear-facing restraint impacted on the front passenger seat, requiring it to be too far forward and too upright. Additionally, all but one of the babies travelled in the rear seat behind the front passenger, as this was the easiest position to get the child in and out of car. This position had generally been recommended by the restraint fitter.

One parent reported that they had the rear-facing restraint fitted in the in centre of the back seat. The parent was a nurse and believed this was the safest position through information seen at work. However, because the rear-facing restraint in the centre seat compromised both the driver and front passenger seats, they had needed to buy a large SUV to fit the child restraint without impacting too much on the other passengers.

Children aged 1-3 years

All children aged 1-3 years were using a forward facing child restraint. Most parents had purchased a convertible forward facing restraint/booster seat because they thought this would last the child for a longer time. Some had previously used a capsule.

One participant (who was a grandparent) had used a forward facing restraint since the grandchild was born in all cars including the child's parents' car, as this was considered the safest and most comfortable for the baby. This

participant lives with his/her daughter and son in law, and they all live in Italy part of the year where it was reported to be common practice for people to hold the baby in their arms in the car. Hence this participant thought a forward facing restraint was a much safer option.

Several other parents had kept their children in a rear facing restraint as long as possible (12-14 months) until the child got too large for the restraint, as they were aware this was safest approach. One parent graduated his child to a forward facing restraint at six months so that the younger child 'was the same as his older brother' – We always make sure we do the same for both of them! While one parent graduated the child to a forward facing just after six months and then moved back to the rear facing position when she discovered it was safer.

Children aged 4-12 years

All children aged 4-6 years were using forward facing child restraints and booster seats. While some young children used booster sears with an adult seat belt at four years, none moved out of a booster seat before seven years.

Some children were still using booster seats at ages 7-10. However, parents reported that it was a struggle to keep them in a booster seat due to peer pressure to move into an adult seat belt. Almost all children aged 8-12 years were using an adult seat belt, at least some of the time.

There was confusion and debate about safest position in the car. All parents agreed that the back seat was safest but disagreed about centre vs. passenger or driver side. Concern was raised about side airbags and the potential to injure children.

4.3 Where did you get your child restraints?

Capsule

Around half of parents across all focus groups had initially hired a capsule (for newborn baby until six months) from the local council or a private organisation.

Rear and forward facing restraints

Overall, around three quarters of parents bought new rear and/or forward facing restraints for babies and young children, either before they were born or after they had outgrown the capsule. Around one quarter of parents only had second hand restraints, although most families had some second hand restraints, which they used as extras or in partners or grandparents cars. All second hand restraints were handed down from family or close friends. Most parents preferred to purchase new restraints, but most considered that second hand restraints were acceptable if the history was known, the restraint had not been involved in a crash and the straps were not frayed.

Overall, parents of babies and young children up to around four years were very concerned about safety when travelling in cars and were aware of issues with second hand restraints. Some parents preferred to buy new products for their babies to avoid 'germs'. One parent of a five year old who had financial issues and only had second hand restraints thought the only safety requirement for a child restraint was that it had 'the red ticks'.

Booster seats

As children got older (aged around four years), parents were less concerned about purchasing new restraints, particularly booster seats. Most families had a combination of new and second-hand booster seats, and a couple had 'booster cushions' as spares.

Stores

All new restraints had been purchased from stores, not online. Most parents had purchased new child restraints at Baby Bunting, because they were seen to be 'reputable', 'specialists' and had a good range and advice, had good prices and a fitting service. Several parents had purchased restraints from Twinkle Tots (independent shop in Northcote) because they thought they would get more independent advice.

4.4 How did you decide which restraints to get?

Children under 12 months

Parents of babies (mainly first child) had done considerably more research than parents of older children and had a very high level of awareness of safety issues in relation to selecting the right restraint, installing it correctly and checking it regularly. The general process was to choose a safe seat, which fitted into the car (slimline car seats were generally preferred) and then to shop around for the best price. Two parents chose a restraint because it was able to be moved between car and pram.

There was a high level of awareness of the ISOFIX restraint fitting method among the parents of babies under 12 months as it had been strongly publicised in stores and online. Four of the six parents had chosen an ISOFIX compatible restraint because they thought it would be easier and safer to use or because it was 'European standard' and 'made for purpose' whereas a restraint using a car seat belt was considered to be a 'compromise'.

Most parents of babies under 12 months thought they had good access to information about child restraints. All parents of babies were happy with their purchase, although several thought they had missed 'the bigger picture' and had only thought about a newborn baby. These parents commented that if they had been more aware of the longer term use of the restraint, they would have skipped the capsule and bought a convertible rear/forward facing car seat, mainly to save money.

Children aged 1-3 years, 4-7 years and 8-12 years

One parent and one grandparent did not do any research and relied on advice from the sales assistant, both at Baby Bunting. The grandparent (Italian) was less likely to seek information than the parents – the grandparent seemed surprised at all the fuss and commented afterwards that 'the young ones were very paranoid'.

One participant's husband had bought a pram and car seat online from overseas and then fitter would not install it, as it was not Australian. The car seat was eventually installed by a professional fitter.

Among parents of children aged 1-3 years, awareness of ISOFIX compatible restraints was low and none were using this type of restraint. One father commented that he had read about ISOFIX but it wasn't approved in Australia when he bought his car seats.

Information sources

Information sources were similar for parents of children of all ages. Most parents did their own research online and there was a strong level of awareness of the need to access 'reputable' information through use of government websites.

Overall TAC and VicRoads had the highest level of credibility, with RACV also considered by most parents to be a good source of information. Only two parents across all of the focus groups had checked the star ratings from the Child Restraint Evaluation Program (CREP, childcarseats.com.au).

One parent obtained most information through a parent Facebook page and one followed the advice of another parent who did 'a lot of research'. Some typical responses relating to choice and purchase of restraints include (further verbatim comments can be found in Appendix D):

Children under 12 months

ISOFIX seemed safer than a seatbelt (baby aged under 12 months).

I'm aware that it's much safer to have the child in the middle and that's not where ISOFIX goes, so I've avoided it (baby aged under 12 months).

We were very concerned about buying a cheap one (baby aged under 12 months).

Children 1-3 years

I've wondered whether to go back to rear facing, it's so much easier to put her in forward facing though (children 1-3 yrs).

Her expensive one is a lot harder to do up, it's really hard for me to get it tight. The design isn't great (children 1-3 yrs).

I just wanted the cheapest one (children 1-3 yrs).

Children aged 4-7 years

We're restricted by the fact that we can't fit three seats across the back. We're also restricted by the fact that I don't want to buy a car seat every time we get to a different stage (children 4-7 yrs).

I got some stuff second hand from a friend and all I knew was to see if it had the red tick for Australian standard. So I put a lot of trust in that, now that I think about it- what does that actually mean (children 4-7 yrs)?

We asked friends who had had experience (children 4-7 yrs).

4.5 Graduating to next restraint type

Rear-facing position

All but one of the babies aged under 12 months were still using a rear-facing restraint, including babies aged six, seven and eight months. Most parents of babies under 12 months were only thinking about their child's current stage and had not really considered when they would make the transition to a forward-facing restraint. Several parents commented that they would keep their child rear-facing for as long as possible.

From rear-facing to forward facing child restraint

The one child who had graduated to a forward-facing restraint under 12 months had done so at eight months due to the difficultly of fitting the rear-facing restraint in the car and its impact on the front seat. Most children had moved to the forward facing position at 12-14 months. Of note, one child had never been in a rear-facing restraint as the grandfather thought it unnecessary.

The most common reason for parents to move their children from the rear to forward facing position was that the child had 'outgrown' the rear facing restraint or position, however this meant a range of things from being too long or generally big. Other reasons were:

- At six months, following the law and to be the same as older brother
- · Child complaints, child preferred front-facing position, parent able to see child more easily
- The rear facing restraint position impacted the position of the seat in front

From forward facing restraint to booster seat

Most children had moved to a booster seat after age four, although several parents with older children could not remember exactly when their children had transitioned to different restraint types. There was considerable confusion about when to move the child to a booster seat and when to use an adult seat belt with the booster seat. Most parents had moved the child when they thought the child was too big, although some had moved the child because the child had complained or been teased by friends for being in a 'baby seat'. There was low awareness of shoulder height markers and only a few of the parents seemed to have forward facing restraints or booster seats with these markers.

From booster seat to adult seat belt

Most children travelled in an adult seat belt, at least some of the time at seven or eight years. The main reasons for moving into an adult seat belt were that the child had 'outgrown' the booster seat or that the child was considered to be old enough or 'mature' enough. There was high awareness among parents of older children that children could legally move into an adult seat belt at seven years. Several parents had allowed their children to sit in an adult seat belt as soon as they turned seven, to comply with the child's wishes.

There was considerable rationalisation about the reason for allowing a child to move out of a booster seat to adult seat belt, for example, 'my kids are very tall'. There was no awareness of 5-step test for readiness to sit in adult seatbelt.

Several parents kept their children in a booster seat as long as possible, which in reality meant until the child complained too much or until the child needed to sit in the front seat, because the back seats were full with younger siblings in child restraints. There appears to be considerable peer pressure to move out of a booster seat, and some pressure to move out of a forward facing restraint into a booster seat.

Sitting in the front seat

There was a high level awareness that children are not allowed to sit in the front seat until at least seven years, although some parents thought it was later (8-10 years). One father had asked his daughter when she was allowed to sit in the front seat.

The main reasons children sit in the front seat are to allow parents to interact with the child or if the back seat is full with other children. Sitting in the front seat was sometimes a 'reward' for older children when they were travelling alone with their parents.

There was considerable confusion and debate about the safest position in car. While all parents understood that the back seat was safer than the front seat, there was disagreement about which back seat was safest. Of note, several parents commented that professional fitters give advice to install child restraints behind the front passenger seat.

Some comments about graduating to next restraint included (further verbatim comments can be found in Appendix D):

I am going to move to forward facing as soon as possible, because she really doesn't like being in the car (baby aged under 12 months).

I don't know what you do if you hit the markers and you're not six months (baby aged under 12 months).

We went forward facing as soon as possible...it was easier and that's how his older brother had it (children 1-3 yrs).

4.6 Awareness of child restraint laws and best practice guidelines

Children under 12 months

All parents of babies aged under 12 months were aware of the law to commence with a capsule or rear facing restraint until six months. Apart from a general understanding that it is safest to keep their child rear-facing as long as possible, there was some confusion and a lack of planning about when they would transition to a forward-facing restraint.

Children aged 1-3 years, 4-7 years and 8-12 years

Awareness of child restraint laws decreased as children got older and parents had less access to information from sources such as child and maternity health nurses, or less need to source information themselves. Most parents were aware that the law requires babies to travel in a capsule or rear facing restraint until six months. Although as previously discussed, the grandparent who attended was not sure about the law and had put the grandchild in a forward facing restraint from birth.

There was considerable confusion about how to know exactly when the child was ready to move to the forward facing position or into a booster seat, other than they were generally 'too big' - most parents were unsure whether the law was based on age, height or weight. Several parents, mainly those with second hand restraints thought the criteria to transition to the next restraint type was based on the child's weight.

General issues

There is a high level of awareness of the law that babies up until six months must travel in the rear-facing position and that it is safest to keep them rear-facing as long as possible. There is some confusion about when to move children into a forward-facing restraint and even more confusion about when to move them into a booster seat and which seat belt, harness options are best. Awareness is high that children must be at least age seven before they are allowed to sit in an adult seat belt or the front seat, however there was no awareness of the 5-step test of readiness to sit in an adult seat belt.

Most parents thought that if they followed the law, their child would be safe, and were confused about why best practice guidelines were 'more stringent' than the law. Some parents thought a law based on age was silly because children of the same age are different weights and heights.

Parents consistently felt that if a child restraint was being sold in Australia it must be safe. Only some were aware of different safety levels (childcarseats.com.au). Typical responses about laws and guidelines included (further verbatim comments can be found in Appendix D):

I really thought it was height and weight, not age (children 1-3 yrs).

Why wouldn't the laws match the guidelines? It seems odd that they would be different (children 4-7 yrs).

I think it's a bit confusing- the guidelines seem more stringent than the law (children 8-12 yrs).

4.7 Installing and checking child restraints

Children under 12 months

All but one parent used professional fitters to fit their first child restraint and many used them every time they moved the restraint. The parents of children under 12 months were very concerned about the safety of self-installation and none trusted their male partners to install the restraint correctly. Most parents of children aged under 12 months thought that all restraint fitters would have some level of accreditation, and felt very confident having the restraint professionally fitted.

One mother fitted an ISOFIX restraint herself. She commented that it was difficult and took a long time.

Most mothers checked the restraint regularly and were aware of checking that the tether strap was connected, seat belts were done, straps and seatbelts were not twisted and ISOFIX connections were tight. Many comments were made, in all groups, that fathers did not take enough care when putting children into child restraints and did not check tightness or twisted straps.

Children aged 1-3 years

Among parents of children aged 1-3 years using forward facing restraints there was a high level of self-installation. All but one parent had installed the restraint themselves or their husband/grandfather had installed. Two parents had used restraint fitters. One was very concerned about moving the restraint after it was fitted as she did not think she could get it back in correctly.

Children aged 4-7 years and 8-12 years

Once children have moved into booster seats, concerns about correct fitting and checking reduce. Almost all parents or their partners fitted booster seats themselves and did not have any concerns about correct fitting or adjusting. Verbatim comments about installing and checking restraints included (further verbatim comments can be found in Appendix D):

It's not set and forget, you have to constantly make sure the straps are tight. I freak out because they slip without it being used (baby aged under 12 months).

I installed the ISOFIX myself but I'm still constantly worried about whether I've done it right (baby aged under 12 months).

4.8 Travelling in multiple vehicles

Similar issues about travelling in multiple vehicles were raised in all groups.

Grandparents

Most babies and children travelled with grandparents quite often. There was a high level of concern about grandparents not having the best restraint for the child's age (e.g. if they had one restraint for all grandchildren) and that grandparents did not take as much care in installing and checking restraints.

Several parents made comments about grandparents relying on their own experiences as parents 30 years ago when it was considered safe to travel with children in their arms or in a 'moses basket' on the seat of the car. This was particularly considered to be an issue for grandparents who had grown up overseas. Some parents even insisted on swapping cars when grandparents looked after children.

Taxis

Most parents with children aged under 12 months had travelled in taxis and almost all had held children in their arms. There was confusion about whether it was more or less safe to hold the baby inside or outside the seatbelt. Several parents had ordered a taxi with a car seat (Melbourne and Cairns) but when the taxi arrived there was no car seat.

Travelling overseas

Many parents with older children (four years and older) had travelled overseas, particularly to Asian countries where there were no restraints in any modes of transport. It is interesting that parents have very strict safety standards for their own selection, installation and use of child restraints but relax these standards considerably when their babies and children travel with grandparents, in taxis or overseas. When questioned about this apparent conflict, the parents said they felt as if they had 'no alternative' or 'no control'. Some comments about travelling in multiple vehicles included (further verbatim comments can be found in Appendix D):

I didn't trust my parents (with my child) in the car at all...they hadn't had enough experience (baby aged under 12 months).

Another issue was that my son was allowed to sit in the front a lot earlier with his dad than he was with me (children 8-12 yrs).

4.9 Walking and cycling independently

This section was addressed with parents of children aged 4-7 years and 8-12 years.

How children travel to school

Most children walked to school with parents or older siblings, cycled with parents or were driven. Only one child travelled independently (aged 12). He was in grade 6 and had just started to catch the tram to school. When children attended a local school, there was a preference among parents to walk or cycle, for exercise, to 'connect with their children' and teach them to walk and cycle safely – through commentary and example. Some children with separated parents went to school across town and in these situations, the parent drove or they caught public transport together. Parents reported feeling more vulnerable when driving with children than when alone, due to their feelings of responsibility and distractions in the car. Some preferred to catch public transport when with children.

Walking independently

Most children aged eight and older had asked to walk to school alone. Parents thought that between age nine and high school was an appropriate age to walk independently, depending on the distance, number of busy roads etc. Most parents had or intended to implement intermediate strategies to ensure their children were ready to walk independently. These included:

- Dropping children off close to school and allowing them to walk the last part
- · Following children to school (walking or driving) to watch how they crossed the road
- · Starting with shorter trips such as to post a letter

Cycling independently

Almost all children learned to ride bikes from age 3-4 years. Parents reported a high level of helmet wearing but were unsure about correct fitting. There was a high level of awareness of laws about riding on footpaths. Children rode with parents on the road, footpath or bike track depending on the circumstances, and none yet rode independently. Parents were unsure whether it was safest to ride with their children on the road or footpath. Concerns were raised about footpath riding due to cars reversing out of driveways.

General issues

There was a high level of awareness of the need for parents to 'teach' their children walking, cycling and road crossing skills through experience and example, including graduated independence. Parents generally thought they would 'know' when their children were ready to walk or cycle alone, although some were guided by when other children the same age did so. Several parents mentioned an ABC TV show, where experts discussed children's readiness to undertake tasks at various ages.

None of the parents had considered the need for resources about walking independently but some had looked for information about cycling, in particular, what is the safest way to cycle with children? – footpath or road, children in front or behind? Parents reported that it was more difficult to find information about children and cycling than it was to find information about child restraints.

As children started to walk independently and to cycle to school with parents, speed management became a concern for parents, who wanted lowered speed limits on local streets and near schools, speed enforcement and traffic calming measures in local streets. Some verbatim comments about walking and cycling independently included:

He was so keen to do it (walking alone), I didn't have an argument against it. He knew the route, he had a road safety sense (children 8-12 yrs).

He wanted to walk alone for the independence (children 8-12 yrs).

I saw an ABC documentary that said we need to encourage and nurture independence. It had input from professionals, but also from parents. Yeah, that gave me confidence, and I knew what I could do as a parent (children 8-12 yrs).

4.10 Providing information to parents

Children under 12 months

The parents of babies under 12 months indicated that while they were able to find all the information they needed about child restraints, they preferred to have information provided to them prior to the birth of their child, e.g. at pre-natal classes when they are buying baby products.

The main 'additional' information parents wanted before purchasing their first restraint was awareness of 'the bigger picture' including when the child would move to the next restraint type, and would thereby consider purchasing a convertible restraint, which would be more cost effective in the longer term. The preferred method of receiving information was via a single, credible government-sponsored website.

Children aged 1-3 years

The key sources of information about child restraints for parents of 1-3 year olds was their own online research, friends and parent blogs. Victorian government websites such as VicRoads and TAC were considered to be the most reputable information source, but somewhat overwhelming due to the volume of information and duplication across sites.

These parents indicated that they were not given any information about child restraints after pregnancy/hospital and were surprised that they did not get any information from the maternal and child health nurse. The preferred method of receiving information was via a single website – with information about this website provided by maternal and child health nurses and child care centres.

Children aged 4-7 years and 8-12 years

Parents of children aged four years and over rarely sought out information about child restraints despite being confused about which restraint their child should be in and when to graduate to the next restraint type. Because child restraints are not top of mind as children age, parents thought they needed reminders and information, preferably via kindergarten and school newsletters. Again, parents would value a single, government child road safety website, which also included information about walking and cycling.

Summary of preferred information sources

Parents' prime need is for information about child road safety to be easily available when they search online, and provided on a single website. A Facebook page associated with the website would be utilised by some parents. It would be helpful for information relevant to the child's age (and the website information) to be provided via:

- Prenatal classes
- Maternal and child health services
- · Childcare, kindergarten and school newsletters

It was noted that information needs to be targeted at both parents as well as grandparents. Some parents of older children also wanted to have information to show to older children to reinforce their own rules about booster seats and sitting in the front seat. Typical comments about seeking information on child road safety included (further verbatim comments can be found in Appendix D):

Children under 12 months

If you could find a way to get information earlier, before you have the baby (baby aged under 12 months).

I made sure the website I was researching on was Australian (baby aged under 12 months).

Children aged 1-3 years

The point at which you can move them or what position they should be in when, that could be clearer (children 1-3 yrs).

They don't seem to factor in what car you're driving. Surely certain seats are more suited to certain cars? (children 1-3 yrs)

Children aged 4-7 years

One of issues is that there is a certain urgency at the beginning. Once that urgency tapers off, because all of our information doesn't come from one source, crucial issues are watered down (children 4-7 yrs).

There should be one website that specifies everything (children 4-7 yrs).

Children aged 8-12 years

That (CREP) would be great for the grandparents...(children 8-12 yrs)

We had that about car restraints in our school newsletter. I pointed it out to my son because it comes from someone else, not the parent, which sent the message ...(children 8-12 yrs).

5 Quantitative research findings

5.1 Overview of analysis approach

The quantitative research findings are reported for the total sample and for the following groups of parents.

- Birth to 6 months
- >6 months to 4 years
- >4 to 7 years
- >7 years

5.2 Overview of sample

Overall the survey sample comprises 484 parents across Victoria with at least one child aged 12 or under. As shown in Table 5.1, 87% of the sample were Melbourne residents (n=423) and 13% were from regional and rural Victoria (n=61).

Table 5.1

Location of survey participants

Location	TOTAL SAMPLE (n=484)
Inner Melbourne	18%
Middle Melbourne	40%
Outer Melbourne	29%
Regional Victorian centre	11%
Rural Victoria	2%

In addition, 80% of the sample were female and most were from English speaking countries (87%). 54% had completed a university degree or higher, with an additional 31% had completed a TAFE or trade certificate. The sample includes a mix of parents with one or more children aged under 12 (see Table 5.2), 38% have one child aged 12 or under and 62% have two or more children aged 12 or under. The sample also includes parents with respect to the age of their youngest child (details are in Table 5.3). Overall, 67% were members of RACV, with one or more RACV products.

Table 5.2

No. of children aged 12 or under How many children do you have aged 12 or under?

No. of children	TOTAL SAMPLE (n=484)	Youngest child <=6 months (n=29)	Youngest child >6 months to 4 years (n=195)	Youngest child >4 to 7 years (n=113)	Youngest child >7-12 years (n=147)
One	38%	24%	30%	27%	59%
Тwo	47%	41%	49%	57%	38%
Three +	15%	34%	20%	17%	4%

Table 5.3

Age of youngest child What is your youngest child's or baby's age?

Age of youngest child	TOTAL SAMPLE (n=484)	Youngest child <=6 months (n=29)	Youngest child >6 months to 4 years (n=195)	Youngest child >4 to 7 years (n=113)	Youngest child >7-12 years (n=147)
0 to 6 months	6%	100%	-	-	-
>6 to 12 months	8%	-	20%	-	-
>12 to 2 years	11%	-	28%	-	-
>2 to 3 years	11%	-	26%	-	-
>3 to 5 years	19%	-	26%	35%	-
>5 to 7 years	16%	-	-	65%	-
>7 to 9 years	14%	-	-	-	46%
>9 to 12 years	17%	-	-	-	54%

5.3 Use of child car seats

5.3.1 Correct use of child car seats

Table 5.4 shows the types of car seats that children usually travel in according to their age. The results show that compliance with minimum legal requirements is high for all age groups.

- All babies aged up to 6 months usually travelled in a rear facing capsule or child seat (100%).
- 84% of children aged >6 months to 4 years usually travelled in a rearward (16%) or forward facing (68%) child car seat with an inbuilt harness.
- 98% of children aged between 4 and 7 years usually travelled in a forward facing (13%) child car seat or a booster seat (85%).
- 99% of children aged >7 to 12 years were either travelling in a booster seat (17%), or adult seat belt (82%).

Table 5.4

Restraint usually used by age of youngest child How does your youngest child usually travel in a car?

Type of child car seat	TOTAL SAMPLE (n=484)	Youngest child <=6 months (n=29)	Youngest child >6 months to 4 years (n=195)	Youngest child >4 to 7 years (n=113)	Youngest child >7-12 years (n=147)
Rear facing capsule or child car seat	13%	100%	16%	-	-
Forward facing child car seat with inbuilt harness	31%	-	68%	13%	1%
Full height booster seat with a back and inbuilt safety harness	7%	-	7%	17%	1%
Full height booster seat with back and safety harness	1%	-	2%	2%	-
Full height booster seat with back and car seat belt	19%	-	5%	55%	12%
On a booster seat without a back, with a safety harness	1%	-	1%	4%	1%
On a booster seat without a back, with a car seat belt	2%	-	1%	4%	3%
On a booster seat that is built into the car	1%	-	1%	3%	1%
With a regular Seat belt only	26%	-	-	4%	82%

5.3.2 Age of child car seat

Parents whose children usually travelled in a baby capsule, child car seat or booster seat were asked when they got that capsule or seat. As shown in Figure 5.1, most parents (81%) obtained their child's car seat in the last five years. Table 5.5 shows that parents whose youngest child is up to 6 months old were most likely to have obtained their child car seat in the last two years (72%).

Overall, 56% of parents reported that their youngest child is their first child to use the seat:

- Among parents with only one child aged 12 or under, 92% reported that their child was the first to use the seat.
- In contrast, among parents with more than one child aged 12 or under, only 41% reported that their youngest child was the first to use the seat – but most (63%) had bought their seat within the last five years.

There were no notable differences according to parents' background, location or whether they had tertiary education.



Figure 5.1

Services used by older people to help reduce the need to be mobile Which of the following services do you use? / Which of the following services does the person you care for use?

Table 5.5

When seat was obtained by age of youngest child

When did you get that capsule or seat? BY What is your youngest child's or baby's age?

When the seat was obtained	TOTALSAMPLE (n=346)	Youngest child <=6 months (n=29)	Youngest child >6 months to 4 years (n=193)	Youngest child >4 to 7 years (n=102)	Youngest child >7-12 years (n=22)
In the last 2 years 2014 or later)	44%	72%	46%	41%	15%
In the last 3 to 5 years (2011 to 2013)	37%	24%	36%	41%	54%
Between 5 and 7 years ago (2009 to 2011)	10%	-	11%	13%	8%
More than 7 years ago (Before 2009)	6%	-	7%	3%	23%
Unsure	1%	3%	1%	3%	-

5.3.3 Where parents obtain their child car seats

As shown in Figure 5.2, most parents (77%) bought their car seat new either direct from a specialist baby store (52%) or a department or chain store (25%). A small proportion bought their child car seat online from a specialist baby store, a department or chain store (8% overall).

Parents whose youngest child is aged 6 months or less were most likely to buy their car seat new direct from a specialist baby store (62%), while parents whose youngest child was aged 7 to 12 years were least likely (31%).

Notably, regional Victorian parents were less likely to have bought a child car seat direct from a specialist baby store (40%), but were relatively more likely to have bought it new direct from a department or chain store (36%). It is also notable that 23% of parents whose youngest child was aged 7 to 12 years obtained their child car seat from a friend or family member compared to 8% of parents overall.



Figure 5.2

Where parents obtained their car seat (n=346) Where did you first get the baby capsule, child car set or booster seat that your youngest child uses?

5.3.4 Sources of information about child car seats

Parents who bought their baby capsule, child car seat or booster seat new were asked to identify the sources of information that they used to decide which seat to buy. As shown in Table 5.6 (in red), the internet is a key source of information about child car seats given that:

- 43% of parents undertook general internet searches for information.
- 38% undertook internet searches on safety performance in crash testing.
- 21% looked at online parent blogs or forums.

Overall, 64% of parents looked for information on the internet. Among this group, the main websites visited were:

- Child restraint manufacturer websites (44%)
- Retailer websites (42%)
- Kidsafe Victoria website (30%)
- VicRoads website (27%)
- Carseats.com.au (24%)
- · Choice magazine website (22%)
- RACV website (22%)

Sales staff at specialist, department and other stores that sell child car seats were also an important source of information, especially for parents whose youngest child is up to 6 months old. Friends and relatives were also an important information source, with 26% indicating that they consulted friends and relatives for information about child car seats.

Table 5.6

Sources of information about child car seats What information sources did you use to decide which baby capsule, child car seat or booster seat to buy?

Information source	TOTALSAMPLE (n=299)	Youngest child <=6 months (n=21)	Youngest child >6 months to 4 years (n=165)	Youngest child >4 to 7 years (n=93)	Youngest child >7-12 years (n=20)
General internet search	43%	52%	44%	39%	50%
Internet search on safety performance in crash testing	38%	29%	42%	34%	30%
Online parent blog or forum	21%	19%	24%	20%	10%
Asked sales person / store assistant	40%	57%	40%	35%	40%
Friends or relatives	28%	24%	33%	25%	15%
Found one on special/good price	26%	29%	25%	30%	15%
Read brochure or pamphlet	17%	10%	18%	18%	10%
Read article in magazine	7%	-	7%	11%	-
Got information from maternal and child health nurse	4%	-	4%	4%	5%
Saw television program	2%	-	3%	1%	5%
Experience, used the brand before	1%	-	2%	1%	-
Spoke to trained car seat installer	-	-	-	1%	-
Can't remember	5%	5%	4%	5%	10%

5.3.5 Decisions associated with obtaining a child car seats

Parents whose youngest child usually travels in a baby capsule, child car seat or booster seat were asked to rate the importance of a series of factors that could contribute to the decision as to which child car seat to obtain. As shown in Figure 5.3, overall the most important consideration is that the seat complies with the Australian Standard: 84% of parents rated this attribute as very important (9 or 10/10). The top five considerations are:

- 1. Compliance with Australian Standard (tick symbol)
- 2. Safety performance in crash testing
- 3. Knowing the history of the capsule or seat
- 4. Comfort for the baby or child
- 5. Having a new capsule or seat, which would be safer than a used one

Compliance with the Australian Standard, is particularly important to parents whose youngest child is aged 6 months or less with 100% of these parents rating compliance with the Australian Standard as very important, compared to 85% of parents whose youngest child is aged >4 to 7 years and 77% of parents whose youngest child is aged >7 to 12 years.

■ Not important (0 to 4/10)	mportant <	Very in (9 or 10	nportant 0/10)	
Compliance with Austra (tick symbol)	alian Standard ol)	2%	4%	84%
Safety performance in	n crash testing	3%	24%	73%
Knowing the history of seat	the capsule or	24%	31%	63%
Comfort for the	e baby or child	1%	36%	62%
Having a new capsule would be safer than	or seat, which a used one	10%	32%	57%
Length of time it would la for the baby or	ast/be suitable child	4%	45%	51%
Seatbelt and tether insta	Illation method	8%	48%	44%
Ease of fitting i	nto the vehicle	8%	51%	41%
Having a new capsule germs	or seat free of	21%	6 43%	36%
Opportunity to also babies or cl	use it for other hildren	24%	45%	32%
ISOFIX compatible insta	Illation method	27%	42%	31%
	Cost	16%	57%	27%
An installation method th baby capsule/car seat	at enables the to be moved	48%	27% <mark>25</mark>	%
Recommendation from	other parents	24%	57%	1 <mark>9%</mark>
Weight of the c	apsule or seat	39%	46%	15%

Figure 5.3

Considerations choosing a child car seat (n=346)

When you were deciding which baby capsule, child car seat or booster seat to get, how important were each of the following factors?

5.3.6 Confidence in having the right child car seat

Parents whose youngest child usually travels in a baby capsule, child car seat or booster seat were asked to rate confidence in having the right seat for their baby or child's age and height on a scale from 0 to 10 where 0 corresponded to not at all confident and 10 corresponded to extremely confident. Overall:

- 40% were moderately confident (5 to 8/10).
- 57% were very confident (9 or 10/10).

Overall only 10 parents did not feel confident that their child was in the right car seat (1 to 4/10). As shown in Table 5.7, those most confident were parents whose youngest child was up to 6 months old (72% very confident).

Table 5.7

Confidence that the child is in the right car seat

How confident are you that you have the right baby capsule, child car seat or booster seat for your baby's or child's cage and height?

Confidence	TOTAL SAMPLE (n=346)	Youngest child <=6 months (n=29)	Youngest child >6 months to 4 years (n=193)	Youngest child >4 to 7 years (n=102)	Youngest child >7-12 years (n=22)
Not confident (0 to 4/10)	3%	-	2%	6%	4%
Moderately/quite confident (5 to 8/10)	40%	28%	42%	39%	42%
Very confident (9 or 10/10)	57%	72%	56%	56%	54%

Parents were also asked what gives them the confidence or why they don't feel confident. Their verbatim responses were provided separately, while a summary of the main themes (coded responses) is presented in Table 5.8. Most commonly parents had done their own general research (23%) to feel confident (they did not specify the type of research or the specific information they were seeking) – 13% of parents who felt moderately confident and 32% of those who felt very confident. Those most likely to undertake general research were:

- From English speaking countries (25% compared to 16% of those from non-English speaking countries).
- Not tertiary educated (28% compared to 19% of those with tertiary education).

Fifteen percent of parents relied on the "feel of the seat", (the baby looked comfortable and "fitted the seat"). Fourteen percent were guided by their child's height; sometimes height was coupled with their child's age. Ten percent of parents were guided by the manufacturer's manual, instructions or markers on the seat. Provided their child was within the guidelines they were confident that their child was in the right seat for their age and height.

Table 5.8

Key reasons parents have confidence that they have the right seat for their child's age and height What gives you the confidence? Why don't you feel confident?

	TOTAL SAMPLE (n=355)	Not Confident (0 to 4/10) (n=10)	Moderately/ quite confident (5 to 8/10) (n=142)	Very confident (9 or 10/10) (n=203)
General research	23%	-	13%	32%
Feels right/baby looks comfortable	15%	10%	18%	14%
Height indicators	14%	20%	13%	15%
Guided by manufacturer /manual/instructions	10%	10%	7%	13%
Reputable brand	10%	-	11%	9%
Age of child	8%	20%	7%	9%
Experience	7%	-	6%	7%
Safe/looks feels safe	7%	-	7%	7%
Child's weight	7%	20%	8%	6%
Installed/checked by a professional	6%	-	5%	8%
Australian standard	5%	-	4%	5%
The seat is new	3%	-	3%	4%
Recommended by retailer	3%	-	1%	3%
Easy to use	3%	-	5%	2%
VicRoads/TAC website	2%	-	2%	2%
Recommended by other parents	2%	-	2%	2%

5.4 Installation of child car seats

5.4.1 Who installed the child car seat

As shown in Table 5.9, overall 63% of parents or a family member (unskilled) installed the child car seat. Those most likely to install the seat themselves were parents whose youngest child was aged between 4 and 7 years (75%), (and therefore most likely to be in a booster seat), whereas parents whose youngest child was aged up to 6 months (and most likely to be in a rearward facing restraint) were least likely (45%).

Parents whose youngest child was aged up to 6 months were more likely (48%) to use a specialist car seat fitting service to install the seat (baby capsule) compared to 27% overall. Among the 63% of parents who installed the child car seat themselves the most commonly mentioned reasons for doing so were:

- They felt confident enough to install it themselves (68%)
- They had experience (they had done it before) (47%)
- It seemed easy to install (40%)

Table 5.9

Who installed the child car seat

Who installed the baby capsule, child car seat or booster seat that your youngest child is in now?

Installer	TOTALSAMPLE (n=355)	Youngest child <=6 months (n=29)	Youngest child >6 months to 4 years (n=194)	Youngest child >4 to 7 years (n=106)	Youngest child >7-12 years (n=26)
Self, partner, friend or family member (not skilled)	63%	45%	60%	75%	54%
RACV/VicRoads/Kidsafe specialist child car seat fitting service	27%	48%	29%	16%	35%
Self, partner, friend or family member (skilled mechanic)	5%	0%	5%	6%	8%
Another mechanic	2%	3%	3%	1%	-
Someone from the store where the seat was bought	1%	3%	1%	1%	-
Can't remember/don't Don't know	1%	0%	1%	1%	4%

Table 5.10 compares the likelihood of parents installing a child car seat themselves or having a specialist install it according to the type of seat in which their youngest child usually travels. Those most likely to install the seat themselves were parents whose youngest child was currently travelling in a full height booster seat (74%), whereas parents whose youngest child usually travelled in a rear facing baby capsule or child car seat were least likely to install the restraint themselves (48%). Parents whose youngest child usually travelled in a rear facing baby capsule or child car seat were most likely (46%) to use a specialist car seat fitting service to install the seat (baby capsule) compared to 27% overall.

Table 5.10

Who installed the child car seat

Who installed the baby capsule, child car seat or booster seat that your youngest child is in now? BY

How does your youngest child usually travel in a car?

Installer	TOTALSAMPLE (n=354)	Rear facing baby capsule or child car seat (n=61)	Forward facing child car seat (n=149)	Full height booster seat (n=129)	Booster seat without a back (n=15)
Self, partner, friend or family member (not skilled)	63%	48%	61%	74%	60%
RACV/VicRoads/Kidsafe specialist child car seat fitting service	27%	46%	29%	16%	27%
Self, partner, friend or family member (skilled mechanic)	5%	2%	5%	6%	7%
Another mechanic	2%	3%	2%	2%	-
Someone from the store where the seat was bought	1%	2%	-	-	-
Can't remember/don't know	1%	1%	2%	7%	-

5.4.2 Confidence that the child car seat has been installed correctly

Parents whose youngest child usually travels in a baby capsule, child car seat or booster seat were asked to rate their level of confidence that it had been installed correctly on a scale from 0 to 10 where 0 corresponded to not at all confident and 10 corresponded to extremely confident. Overall, as shown in Table 5.11, 25% were moderately confident (5 to 8/10) and 74% were very confident (9 or 10/10) that the seat had been installed correctly.

Table 5.11

Confidence that the child car seat has been installed correctly

How confident are you that the baby capsule, child car seat or booster seat has been installed correctly for your child who is currently using it?

Confidence	TOTALSAMPLE (n=346)	Youngest child <=6 months (n=29)	Youngest child >6 months to 4 years (n=193)	Youngest child >4 to 7 years (n=102)	Youngest child >7-12 years (n=22)
Not confident (0 to 4/10)	2%	0%	1%	4%	3%
Moderately/quite confident (5 to 8/10)	25%	22%	24%	20%	44%
Very confident (9 or 10/10)	74%	78%	76%	76%	53%

As shown in Figure 5.4, parents who were most confident that the child car seat has been installed correctly, had their seat installed by a specialist (84% very confident), compared to those who indicated that another mechanic or someone from the store where they bought the seat had installed it.



Figure 5.4

Confidence (very confident) that the child car seat has been installed correctly, by who installed it How confident are you that the baby capsule, child car seat or booster seat has been installed correctly for your child who is currently using it?

5.4.3 Frequency of checking the seat

Figure 5.5 shows overall how often parents check various features of a child car seat. Parents had the option of indicating "not applicable" if their child car seat did not have the particular feature.

Although overall most parents check the harness or seatbelt is properly fastened every time the child travels in the car (76% and 73% respectively). However, only about half the parents reported that they check the straps are not twisted (53%), shoulder pads are correctly positioned (47%), and check the tightness of the straps (44%) every time the child travels. Parents are even less attentive to other aspects of the restraint and reported that they only sometimes check that the restraint is correctly anchored to the car's anchor point and check the general wear and tear of the seat.

Parents of babies aged 6 months or less are most likely to do regular checks of their child's car seat whereas parents of children aged >7 to 12 years are least likely. Figures 5.6 to 5.9 on the following pages compare the frequency of checking the car seat according to the type of car seat that in which their youngest child usually travels. The graphs indicate that:

- Regardless of the type of seat, most parents check that the harness buckle and/or seatbelt are correctly fastened every time their child travels in the car
- Parents whose children usually travel in a rear facing or forward facing child car seat are generally more likely to check the child car seat is being used correctly



Figure 5.5

Overall frequency of checking the child car seat How often do you check the following?

 Every time your child travels in the car Sometimes/occasionally Never 				ons	
Harness buckle is properly fastened (n=61, N/A=0)		8	37%	7	°% 7 %
Seatbelt buckle is properly fastened (n=61, N/A=0)		749	%	13%	11% 2%
Straps are not twisted (n=61, N/A=0)	_	69%		25%	5% 2%
Shoulder pads are correctly positioned (n=59, N/A=2)		63%		31%	7%
Tightness of the straps (n=61, N/A=0)		52%		39%	8%
Capsule or seat correctly anchored to car's anchor point (n=61, N/A=0)	399	%	26%	28%	7%
General wear and tear of capsule seat (n=60, N/A=1)	22%	37	7%	39%	3%

Figure 5.6

Frequency of checking the child car seat (youngest child usually travels in rear facing capsule or seat) How often do you check the following? Every time your child travels in the carSometimes/occasionally

On most occasions

■Never



Figure 5.7

Frequency of checking the child car seat (youngest child usually travels in forward facing seat) How often do you check the following?

 Every time your child travels in a Sometimes/occasionally 	the car	On mos Never	t occasio	ns		
Seatbelt buckle is properly fastened (n=128, N/A=1)		71%		16%	6 13%)
Harness buckle is properly fastened (n=88, N/A=41)		58%		25%	12%	5%
Straps are not twisted (n=118, N/A=11)	40%	0	36%	2	22%	3%
Shoulder pads are correctly positioned (n=102, N/A=27)	35%		31%	30	%	4%
Tightness of the straps (n=113, N/A=16)	30%	3	34%	34	%	2%
Capsule or seat correctly anchored to car's anchor point (n=119, N/A=10)	26%	27%	6	43%		4%
General wear and tear of capsule seat (n=128, N/A=1)	13%	31%		53%		3%

Figure 5.8

Frequency of checking the child car seat (youngest child usually travels in a booster seat with a full back) How often do you check the following? Every time your child travels in the car

Sometimes/occasionally

On most occasionsNever

-	1				
Harness buckle is properly fastened (n=10, N/A=5)			70%		
Seatbelt buckle is properly fastened (n=15, N/A=0)	60%		34%	7%	
Straps are not twisted (n=14, N/A=1)	43% 21%		21%	36%	6
Shoulder pads are correctly positioned (n=8, N/A=7)	38%	13	%	38%	13%
Tightness of the straps (n=13, N/A=2)	31%	239	%	31%	15%
Capsule or seat correctly anchored to car's anchor point (n=10, N/A=5)	30%	20%		40%	10%
General wear and tear of capsule seat (n=12, N/A=3)	25%	25%		50%	

Figure 5.9

Frequency of checking the child car seat (youngest child usually travels in a booster seat without a back) How often do you check the following?

As shown in Table 5.12 parents of babies aged 6 months or less are most likely to do regular checks of their child's car seat whereas parents of children aged >7 to 12 years are least likely. For example:

- More than 70% of parents whose youngest child is aged up to 7 years always check that the harness or seatbelt is properly fastened.
- In contrast only 33% of parents whose youngest child who is aged >7 to 12 years who uses a harness and 56% who use a seatbelt check the harness or belt every time their youngest child travels in the car.
- In general, parents whose youngest child is aged up to 6 months are most likely to thoroughly check the car seat is being used properly.

Table 5.12

Aspects of the child car seat that are checked every time the child travels in the car How often do you check the following? (Answer = Every time your child travels in the car) **BY**

What is your youngest child's or baby's age?

Aspect of child car seat	TOTAL SAMPLE (n<355)*	Youngest child <=6 months (n<29)*	Youngest child >6 months to 4 years (n<194)*	Youngest child >4 to 7 years (n<106)*	Youngest child >7-12 years (n<26)*
Harness buckle is properly fastened	76%	90%	80%	71%	33%
Seatbelt buckle is properly fastened	73%	72%	76%	75%	56%
Straps are not twisted	53%	69%	57%	46%	27%
Tightness of straps	44%	52%	49%	36%	16%
Shoulder pads correctly positioned	41%	69%	49%	39%	23%
Capsule or seat correctly anchored to car's anchor point	27%	34%	26%	28%	19%
General wear and tear of capsule or seat	18%	18%	20%	19%	4%

*Note the sample sizes in this table are provided as a guide only as they differ for each aspect of the car seat due to variable numbers of not applicable responses.

5.5 Transitioning

5.5.1 Frequency of checking that the child fits into the seat

The frequency that parents check that their child fits into their capsule or car seat and within the shoulder height markers varies considerably. As shown in Figure 5.10, approximately one third of parents check every time their child travels in the car, one third check on most occasions and the remainder check sometimes or occasionally or less often. However, as shown in Table 5.13, 52% of parents whose youngest child is six months or younger indicated that they check that their child fits within shoulder height markers every time their child travels in the car.

It is notable that parents from regional Victoria are considerably more likely to check their child fits into the car seat in accordance with their age and height every time the child travels in the car: 49% of those who live regional Victoria check their child fits into the car seat every time the child travels in the car compared to 34% overall.

Likewise those from regional Victoria are considerably more likely to check their child fits within the shoulder height markers every time the child travels in the car: 47% of those who live regional Victoria check their child fits into the car seat every time the child travels in the car compared to 33% overall.



Figure 5.10

Frequency of checking the child fits into the car seat How often do you check the following?

Table 5.13

Those who check their child fits into the car seat every time the child travels in the car How often do you check the following? (Answer = Every time your child travels in the car) BY What is your youngest child's or baby's age?

Aspect of child car seat	TOTAL SAMPLE (n<355)*	Youngest child <=6 months (n<29)*	Youngest child >6 months to 4 years (n<194)*	Youngest child >4 to 7 years (n<106)*	Youngest child >7-12 years (n<26)*
Your child fits within shoulder height markers	35%	52%	37%	30%	21%
Your child fits into capsule or seat in accordance with age and height	34%	38%	37%	31%	20%

*Note the sample sizes in this table are provided as a guide only as they differ for each aspect of the car seat due to variable numbers of not applicable responses

5.5.2 Decisions associated with moving to forward facing seat

Overall, 31% of children (n=150) travel in a forward facing seat with an inbuilt harness. This includes:

- Children who are aged >6 months to 4 years (89%; n=133)
- Children aged >4 to 7 years 10%; (n=15)
- Children aged >7-12 years (1%; n=2)

The 31% of parents whose youngest child usually travels in a forward facing seat with an inbuilt harness were asked how they decided to move their youngest child into a forward facing seat. Table 5.14 shows the key considerations (those mentioned by at least 10% of parents), in deciding to move their youngest child to a forward facing seat. Most often the decision was based on:

- The parent's assessment that the child was old enough (51% of parents).
- The parent's assessment that the child's weight was sufficient (47% of parents).
- The parent's assessment that their child was tall enough (44% of parents).

Few parents sought external advice such as the maternal and child health nurse (only 18% overall), or did any research (e.g. looking online – only 16%).Just over a quarter (29%) moved their child into a forward facing seat because it was legal to do so.

Table 5.14

Decisions associated with moving the youngest child into a forward facing seat How did you decide when to move your youngest child into a forward facing child car seat?

Consideration	TOTAL SAMPLE (n=150)	Youngest child >6 months to 4 years (n=133)	Youngest child >4 to 7 years (n=15)	Youngest child >7-12 years (n=2)
You thought your baby was old enough to face forward	51%	46%	60%	50%
You thought your baby was the right weight to face forward	47%	46%	47%	50%
You thought your baby was tall enough to face forward	44%	50%	33%	50%
It was legal to do so	29%	29%	33%	-
You thought your baby outgrew the capsule	24%	32%	13%	-
Too difficult to move your baby in and out of the rear facing car seat	18%	14%	27%	-
You asked the child and maternal health nurse	18%	14%	27%	-
You looked online	16%	14%	20%	-

5.5.3 Decisions associated with moving to a booster seat

Overall, 31% of children (n=149) travel in a booster seat (of any type). This includes:

- Children who are aged >6 months to 4 years (21%; n=30)
- Children aged >4 to 7 years (63%; n=94)
- Children aged >7-12 years (16%; n=25)

The 31% of parents whose youngest child usually travels in a booster seat (any type of booster seat) were asked how they decided to move their youngest child into a booster seat. Table 5.15 shows the key considerations (those mentioned by at least 10% of parents), in deciding to move their youngest child to a forward facing seat. Most often the decision was based on the child's size:

- The parent considered that the child had outgrown the seat (23% of parents).
- The parent considered that the child was big enough (21% of parents).
- The child's height (19% of parents).

Few parents sought external advice or did any research (e.g. looking online – only 11%). Just over a quarter (16%) moved their child into a booster seat because it was legal to do so.

Table 5.15

Decisions associated with moving into a booster seat How did you decide when to move your youngest child into a booster seat?

Consideration	TOTAL SAMPLE (n=149)	Youngest child >6 months to 4 years (n=30)	Youngest child >4 to 7 years (n=94)	Youngest child >7-12 years (n=25)
You thought your child outgrew the child car seat	23%	23%	24%	16%
You thought your child was big enough	21%	20%	22%	16%
You thought your child was tall enough	19%	13%	18%	32%
It was legal to do so	16%	7%	20%	12%
You looked online	11%	23%	7%	12%

5.5.4 Decisions associated with moving into an adult seat with a regular seat belt

Overall, 26% of children (n=124) usually travel in an adult seat belt (see Table 5.4). Among this group currently 3% are aged between 5 and 7 years (no parents with children currently under the age of 4 reported that their child has moved into an adult seat belt).

Figure 5.11 shows the age at which the 124 children who usually travel in an adult seat belt moved into an adult seat belt. Of concern, 39% of parents (48 parents) reported that they had moved their youngest child into an adult seatbelt between 4 and 7 years of age. However, most of these children (92%) had since turned 7, so the parents are currently transporting their children in accordance to the law.

The 26% of parents whose youngest child usually travels in an adult seat belt were asked how they decided to move their youngest child into an adult seat belt. Table 5.16 shows the key considerations (those mentioned by at least 10% of parents), in deciding to move their youngest child to a forward facing seat. Most often the decision was based on the child's size and age:

- The parent was guided by the child's height (64% of parents).
- The child's age (37% of parents).
- The parent considered that the child had outgrown the child car seat (31% of parents).

Thirty percent of parents did some research to find out and 25% moved their child because it was legal to do so.



Figure 5.11

Age when youngest child moved into an adult seat belt When did your youngest child move into an adult seat belt?

Table 5.16

Decisions associated with moving into an adult seat belt How did you decide that your youngest child would move to an adult seat belt?

Consideration	TOTAL SAMPLE (n=149)
You were guided by your child's height	64%
You were guided by your child's age	37%
Your child outgrew your child car seat	31%
You did some research to find out	30%
You were guided by your child's weight	29%
It was legal to do so	25%

5.5.5 Importance of considerations in moving a child to an adult seat belt

Parents whose youngest child usually travels in a regular seat belt only¹ were asked to rate the importance of a series of factors that could contribute to the decision to move them into an adult seat belt. As shown in Figure 5.12, overall the most important consideration is the child's safety: 82% of parents rated this consideration as very important (9 or 10/10). The second consideration for parents was that they were complying with the law (very important for 67% of parents).

A small proportion of parents were strongly influenced by their children: 12% rated their child's maturity (including the child wanting to feel grown up, or not be called a 'baby' by their siblings) as very important and 3% indicated that moving their child to an adult seat belt to stop them complaining was a very important consideration. Even taking into account the small sample size (n=11) the following considerations were more likely to be very important to parents from non-English speaking countries:

- Their child's safety (100% very important compared to 82% overall)
- Knowing they were complying with the law (91% very important, compared to 67% overall)
- Their child's comfort (55% very important compared to 35% overall)



Figure 5.12

Considerations in moving a child into an adult seat belt (n=124)

When you were deciding to move your youngest child into an adult seat belt, how important were each of the following factors?

5.5.6 Frequency of travelling in the front seat

Overall, as shown in Table 5.17, it is rare for children aged 6 months or less to ever travel in the front seat of a car². Only one parent reported that their youngest child aged <= 6 months ever travelled in the front seat (although they always travelled in it). The likelihood of ever travelling in the front seat is slightly more among children aged older than 6 months:

- 6% of youngest children aged >6 months to 4 years ever travel in the front seat (11 children)
- 8% of youngest children aged >4 years to 7 years ever travel in the front seat (8 children)

Notably, from >7 to 12 years, 73% of children travel in the front seat some of the time, with 29% travelling in the front seat quite often and 3% always travelling in the front seat.

Table 5.17

Frequency of travelling in the front seat

How often does your youngest child sit in the front seat of a car (i.e. your car or someone else's car)?

Frequency of travel in the front seat	Youngest child <=6 months (n=29)	Youngest child >6 months to 4 years (n=195)	Youngest child >4 to 7 years (n=113)	Youngest child >7-12 years (n=147)
Never	97% (n=28)	94%	93%	27%
Only if there is no other room in the car	-	2%	4%	14%
Occasionally (less than once a month)	-	2%	3%	12%
Sometimes (once a month to once a week)	-	1%	-	15%
Quite often (once a week or more)	-	-	1%	29%
Always	3% (n=1)	1%	-	3%

² The research did not explore reasons that children aged younger than 7 were travelling in the front seat, for example they may be travelling in a vehicle with only one row of seats, in which case it is legal for them to travel in the front.

5.6 Attitudes and understanding of issues associated with children travelling in cars

5.6.1 Attitudes to children travelling in cars

Figure 5.13 shows the proportions of parents who agree/strongly agree or disagree/strongly disagree with various statements about children travelling in cars. Overall most parents agree /strongly agree that:

- They feel confident that they understand the current laws around child car seats (76%)³.
- Older people who transport children need to be better educated about the current laws around child car seats (75%).

Overall most parents disagree /strongly disagree that:

- It is difficult to know what type of child car seat is suitable for a baby (69%).
- It is sometimes not possible to have a young child in a car seat or booster seat (69%).
- It is difficult to know what type of child car seat is suitable for a young child (59%).
- It is okay for children to sit in the front seat of a car when they are seven years old (58%).



Figure 5.13

Attitudes to children travelling in cars

To what extent do you agree or disagree with the following statements about children travelling in cars?

5.6.2 Awareness of laws and recommendations

As shown in Table 5.18, regardless of the age of their youngest child nearly all parents were aware that babies under 6 months are required by law to travel in a rearward facing baby capsule or child car seat (94% overall). Additionally, nearly all parents knew that any children younger than 7 years are required to sit a child car seat (87% overall).

³ While three quarters of respondents indicated that they were confident that they understood the laws, other data (see section 7.7.2 and 7.3.1) suggests that they are not aware of all the laws and therefore some parents are not following them fully.

Of parents with children aged under 6 months, all were aware that babies under 6 months are required to travel in a rearward facing baby capsule or child car seat and all were complying with that law. Similarly, most parents with children aged under 7 years (88%) were aware of the law that any children younger than 7 years are required to sit a child car seat and 96% were complying with that law. Eight parents had a child aged under 7 years sitting in a regular seat belt or harness not a child restraint. Of these, five were aware that this was not legal, two were not aware of the law and one unsure.

Most parents (79%) were aware that road safety authorities recommend that a baby or child should only move to the next type of seat when they have outgrown the one they currently use, according to their height. However less than half (48%) were aware that road safety authorities recommend children should only be allowed to sit in the front seat of a car when they are older than 12 years. Most parents were aware of the Australian Standard for child car seats (76%).

Table 5.18

Awareness of laws and recommendations

Which of the following laws and recommendations are you aware of in relation to transporting babies and children in cars?

Awareness	TOTAL SAMPLE (n=484)	Youngest child <=6 months (n=29)	Youngest child >6 months to 4 years (n=195)	Youngest child >4 to 7 years (n=113)	Youngest child >7-12 years (n=147)
The law requires babies under 6 months to travel in a rearward facing baby capsule or child car seat	94%	100%	95%	93%	93%
The law requires any children younger than 7 years to sit a child car seat	87%	86%	86%	92%	85%
Road safety authorities recommended that a baby or child should only move to the next type of seat when they have outgrown the one they currently use, according to their height	79%	86%	81%	87%	69%
There is an Australian Standard (five ticks) for child car seats	76%	69%	77%	74%	77%
Road safety authorities recommend children should only be allowed to sit in the front seat of a car when they are older than 12 years	48%	38%	51%	48%	45%

5.7 Information needs and preferences

5.7.1 Whether parents need more information

Parents were asked whether they think there is a need for more information about child car seats. Overall: 55% were definite that more information was needed (64% of parents whose youngest child was aged >7 to 12 years; and 67% of parents from regional Victoria) and 39% believe that more information was probably needed.

5.7.2 Topics where more information is needed

As shown in Table 5.19, the main topic area where parents require more information is when a child can move into an adult seat belt (67% of parents who require more information would like information on this topic). Table 5.19 also shows that parents whose youngest child is aged up to 6 months were most in need of information. In particular, approximately 75% wanted more information about when to move children into an adult seat belt, when to move babies and young children into next type of child car seat, and more information about the safety of different types of child car seats.

Generally parents who indicated that they were least in need of more information were those whose youngest child was aged >7 to 12 years, although 76% needed information about when to move children into an adult seat belt. Notably parents from non-English speaking countries were also most in need of information about the safety of different types of car seats (76%).

Table 5.19

Topics requiring more information

Which of the following topics would you like to have more information about?

Awareness	TOTAL SAMPLE (n=456)	Youngest child <=6 months (n=28)	Youngest child >6 months to 4 years (n=181)	Youngest child >4 to 7 years (n=103)	Youngest child >7-12 years (n=144)
When to move children into an adult seatbelt	67%	74%	57%	70%	76%
When to move babies and young children into next type of child car seat	61%	74%	68%	54%	54%
When it is okay for a child to sit in the front	60%	67%	50%	66%	68%
Safety of different types of child car seats	57%	78%	64%	48%	50%
Fitting and adjusting child car seats	48%	67%	51%	46%	42%
Where to put child car seats in the car	37%	59%	44%	33%	27%

5.7.3 Preferred method of obtaining information

Parents were asked to indicate the methods of obtaining information that suited them. Their responses are summarised in Figure 5.14. Significantly, parents have a preference for online information with 58% indicating that a simple webpage that contains all relevant information on child road safety would suit them. Parents would also prefer to obtain information via the internet when it suits them (57%).

However, while online information was preferred, there was still a significant demand for printed information as 44% of parents reported that they would prefer a pamphlet or booklet that was distributed via the maternal and child health nurse (72% of parents whose youngest child is aged up to 6 months). In addition, 38% of parents preferred a pamphlet or booklet included in the Bounty Bag for new mothers (55% of parents whose youngest child is aged up to 6 months).

Notably, 39% of parents from non-English speaking countries indicated that a Facebook page would suit them (39% compared to 27% overall). They were relatively less likely to be interested in a simple webpage containing the relevant information on child road safety (40% compared to 58% overall).



Methods of obtaining information that suit parents Which of the following ways of obtaining information suit you?

5.8 Independent travel

Only the 311 parents whose youngest child was aged 3 or older were asked questions about independent travel.

5.8.1 Frequency of independent travel

Parents were asked how often their youngest child:

- Walks alone to the shops, school, kindergarten etc.
- Rides a bicycle, tricycle or scooter on the footpath alone
- Rides a bicycle, tricycle or scooter on the road alone

As expected, as shown in Table 5.20, the likelihood that children ever walk or cycle alone generally increases as the child gets older. By the time the youngest child is aged >7, 31% walk independently, 41% cycle on the footpath and 20% cycle on the road.

In total, 32% of parents (n=97) indicated that their youngest child aged 3 to 12 either walked or cycled alone or did both at least occasionally. The results are similar regardless of the whether the parent comes from an English speaking background, whether they live in Melbourne or regional Victoria or parents' education.

As shown in Figure 5.15, among those children aged >7 to 12, only a small proportion of children ever walk or cycle or cycle on the road independently: 25% ever walk alone and 20% ever cycle on the road. Children aged >7 to 12 are more likely to cycle independently on the footpath (41% ever ride a bicycle, tricycle or scooter alone on the footpath).

Table 5.20

Children who ever walk or cycle independently How often does your youngest child do the following? (Answer = at least occasionally)

Consideration	TOTAL SAMPLE (n=311)	Youngest child 3 to 4 years (n=51)	Youngest child >4 to 7 years (n=113)	Youngest child >7-12 years (n=147)
Walk alone	17%	8%	4%	31%
Rides a bicycle, tricycle or scooter on footpath alone	26%	10%	12%	41%
Rides a bicycle, tricycle or scooter on road alone	11%	8%	4%	20%

- Quite often or very often (at least once a week)
- Sometimes or occasionally (<once a month to once a fortnight)
- Never



Figure 5.15

Frequency of independent travel among children aged 7 to 12 years How often does your youngest child do the following?

5.8.2 Methods of preparing children for independent travel

The 97 parents who indicated that their youngest child aged 3 to 12 either walked or cycled alone or did both were asked what they did to prepare their child to walk or cycle independently. As shown in Figure 5.16, the most common methods of preparing children for independent travel were walking or cycling with the child and talking about road safety (66%)and starting with very short walks or rides close to home (56%).



Figure 5.16

Methods of preparing children for independent travel How did you prepare them to walk or ride independently?

5.8.3 How parents decide to allow children to travel independently

The 97 parents who indicated that their youngest child aged 3 to 12 either walked or cycled alone or did both were asked how they decided that their child was ready to walk or cycle independently. As shown in Figure 5.17, the most common methods of deciding were the parent feeling that their child was ready (75%) and because the child asked (36%).



Figure 5.17

Methods of deciding the child was ready to travel independently How did you decide that it was okay for your child to walk or cycle alone?

6 Discussion

This research explored parents' current knowledge on issues relevant to child road safety. It was found that most parents are aware and compliant with the Victorian child restraint law at a high level. Previous research suggests that awareness and compliance with the law diminishes as children got older, which was somewhat supported by the current research. Specifically, this research found relatively high levels of compliance and awareness with the law across all age groups. For example, while all parents with babies less than 6 months old had their children in rearward facing restraints, compliance diminished for parents with children aged 6 months to 4 years (84%). However, compliance then increased for children aged 4-7 years (98%) and for children older than 7 years (99%). Parents with babies were clearly more vigilant in keeping their children in restraints for longer than legally required, with most parents reporting that they kept their children rearward facing until around 12 months old.

However, it is important to note that there were some incidences identified of early transition into booster seats and adult seatbelts. For example, 17% of children aged between 6 months to 4 years had transitioned into a booster seat before the legal age (4 years). Additionally, while only 4% of children in the current study were found to be travelling in an adult seat belt before the legal age of 7 years, 39% of parents with children legally using an adult seatbelts reported that they had transitioned the child into an adult seat belt before the legal age of 7. This supports previous research that found it is most common for children aged between four and eight to be prematurely moved into restraints designed for older children and adults. It is important to note that the results of the current study show most of the children that transitioned early into a booster seat were aged between 3 to 4 years, with the parents reportedly doing so because of their own assessment that the child was big enough, had outgrown the restraint, or was tall enough.

While most parents are confident that they know and understand the law, there appeared to be some confusion in relation to when to move a child into the next sized restraint. Rather than solely following the law, parents tend to rely on their own judgment to decide when to transition their child to the next restraint type. Often this judgement is based on the parent's assessment as to whether the child had outgrown the restraint. Even when parents are not aware of the law or best practice or are confused, they still rely on their own judgment to decide when to transition their child to the next restraint type. Parental judgement is usually based on the child's size, and while this may initially appear consistent with best practice guidelines, it is clear that there is a mix of parents who are keeping their children in a restraint longer than required and parents transitioning children too early. This supports previous research that has found best practice use of child restraints is low. In fact, there appeared to be considerable confusion between the law and best practice guidelines.

These findings also suggest there is variation in how parents assess that the child has outgrown the restraint. Parents are considering a range of factors including height, weight, age, and the perception that the child has generally 'outgrown' the seat. It is understandable these factors are being considered, as they relate to changes over time in Victorian child restraint laws, the Australian Standard, and best practice guidelines. For example, the current Victorian law uses age to determine which restraint a child should be using, while child restraints made to the 2010 and 2013 Australian Standard's (AS/NZS 1754) are age and height based, which include shoulder height markers to help parents determine when the child has outgrown the seat. Additionally, older restraints made to the previous Australian Standard (e.g. 2004) use a child's age and weight to determine best fit (e.g. rearward facing seats suitable for children up to 12 months/12kgs). Therefore, it is not surprising parents are using various factors to determine whether the child has outgrown the seat.

Most parents indicated that safety was a very important consideration in moving to an adult seatbelt, and most parents were also aware of recommendations to only use the next sized restraint when the child has outgrown their current seat. Parents want to act in the best interests of their child's safety, and hence information on how to assess whether a child has outgrown their restraint may need to be better communicated (e.g. 5 step test to determine whether a fits into an adult seatbelt). The survey findings also indicated that just over half of parents are very confident that their child is in the right car seat for their size. This finding is reinforced by the focus group findings and feedback from stakeholder interviews that many parents are confused about when to transition children into the next size restraint.

It is encouraging that most babies and children are currently using a restraint or booster seat that was obtained less than five years ago (i.e. after the more stringent Victorian legislation came into effect), and was specifically bought

new for the baby or child. There was a very low incidence of purchasing restraints second hand (4%). Based on this information, it is likely that most restraints being used would meet the 2010 Australian Standard at the minimum, and hence the restraint would likely be designed with shoulder height markers as a guide to when the child has outgrown the seat. It is therefore somewhat surprising, that of these parents, only 14% reported height indicators gave them confidence that they are using the right restraint. This issue is further exacerbated considering a high proportion of parents (97%) are, at the very least, occasionally checking that their child fits in the seat based on age and height. However, despite performing these checks, the height indicators do not appear to be giving parents much confidence. These findings are supported by the stakeholder interviews, which suggested there needs to be more understanding and promotion of shoulder height markers.

Before purchasing a restraint, the majority of parents undertake online research. Almost half the parents reported accessing either manufacturer or retailer websites. This suggests that parents are searching for restraint specific information prior to purchasing (e.g. price, types of seats available, features of seats etc.). Only about a quarter of parents reported visiting other websites such as Kidsafe Victoria, VicRoads, childcarseats.com.au, Choice Magazine and RACV. Other key sources of information used to obtain information about car seats included speaking to retail staff and friends or relatives.

Parents may also be specifically searching the manufacturer and retailer websites for confirmation certain child restraints meet the Australian Standard, as compliance with the Australian Standard was the most important consideration when deciding what seat to purchase. This is an interesting finding, as all child restraints sold in Australia must meet the Australian Standard. Furthermore, safety performance in crash testing was also highly rated as very important to parents (73%). Although only 38% reportedly performed internet searches for crash testing information and 24% directly accessed the Child Restraint Evaluation Program's (CREP) crash test information. These purchasing considerations were reported by parents as more important than other factors such as ease of fitting the seat and the baby or child's comfort.

However, the qualitative research suggested that most parents assume that if a child restraint is available for sale in Australia that it will 'be safe' and have performed well in crash testing. Even fewer parents are aware that crash performance differs for different restraints and that crash performance can be checked on the CREP (childcarseats.com. au) website. Therefore, it is apparent that some confusion exists between crash testing for compliance to the Australian Standard and crash testing performed by CREP to obtain independent safety performance information (e.g. star ratings).

Around two thirds of parents installed their child restraints or booster seats themselves, with less than one third (27%) reporting that they used a professional fitting service. Those who used professional fitting services reported a slightly higher level of confidence that the seat had been installed correctly compared to those installing it themselves. Those most likely to use professional fitting services were parents of babies aged 6 months or under (48%), e.g. those using rearward facing restraints. The qualitative research reinforced that parents are most likely to use professional fitting for rearward and forward facing restraints than they are for booster seats. In fact, only a quarter of parents reported having booster seats professionally fitted.

There may be a number of factors influencing the increased likelihood of having rearward and forward seats professionally fitted. For example, most rearward and forward facing seats used by parents in this study require both a seatbelt and tether strap to attach the restraint to the vehicle, whereas most booster seats only require the tether. This typically makes booster seats less involving and easier to install. Also, by the time children are using booster seats, parents have experience with using rearward and forward facing restraints, which may give them the confidence to install the booster seat themselves. Indeed, more than three quarters of the parents using booster seats were very confident it had been installed correctly.

Parents were also relatively vigilant with regularly checking some aspects of the restraint are being used correctly, but seem to regularly neglect other important aspects that should be regularly checked. For example, two thirds of parents check the harness buckle and/or seat belt and that the child fits within the shoulder height markers if not every time the child travels, on most occasions. While it is recommended that the harness buckle and/or seatbelt should be checked before every trip, checking the shoulder height markers at this frequency is more stringent than the current recommended monthly check. Although, despite performing these checks, as previously mentioned, it is questionable how much confidence the shoulder height markers are giving parents.

Of concern, and consistent with previous research, parents are less attentive to other aspects of restraint maintenance such as ensuring straps are not twisted or too loose and correct positioning of shoulder pads. While it is recommended to check these during every trip, only about half of the parents are doing so. Parents also report that they only sometimes check restraints are correctly anchored to the car and the general wear and tear of the restraint, which is in accordance with recommendations. It is important to note, that as with many other aspects of child safety identified in this study, attention to checking certain features of restraints reduces as children get older.

As expected, the survey results indicated that few children walked or cycled alone before 7 years of age. This is consistent with focus group findings where parents indicated that an appropriate age to walk or cycle independently was somewhere between 9 and 12 years. Although, age was not the single most important factor, with parents outlining multiple factors influence their decision, including the child's maturity and the road environment (e.g. busyness of roads and number of crossings etc.).

Overall it was considered that children would be ready to walk alone before they would be ready to cycle alone. Of children aged, 7 to 12 years, around one third walk independently; 41% cycle on the footpath independently and 20% cycle on the road independently. Between half and two thirds of parents prepare their children for independent travel, most commonly by accompanying them initially and talking about road safety, followed by allowing their children to travel very short distances close to home.

As with use of child restraints, parental assessment is the main way for deciding whether their children are ready to travel independently, with three quarters of children being allowed to travel independently because the parent felt the child was ready. In the focus groups, none of the parents had considered the need for resources about walking independently, however some had looked for information about cycling, in particular, what is the safest way to cycle with children (e.g. on the footpath or road, with children in front or behind).

It is important to note that many of the issues identified in this research are exacerbated within cultural and linguistically diverse communities (CALD). Many newly arrived refugees appear to perceive Australia to 'over-react' and be over protective in relation to child road safety. It is interesting to note that while most people prepare their children to walk or cycle independently based on whether it is safe to do so, children within CALD communities are reportedly often required to walk or cycle to school independently due to lack of supervision opportunities, and hence may not have the same parental involvement as other children.

Furthermore, many refugees have not driven a car in their country of origin and are therefore unaware of laws and child road safety issues. This makes it difficult to convey the message that child road safety issues are important. Even when it is possible to convey the safety message, it is difficult to explain things in detail, such as legislation, when to transition to next restraint type, and the need to check restraints.

There also appears to be a high level of cheap second hand restraint use within CALD communities, where the restraints are passed on from family to family or found in roadside hard rubbish collections. Additionally, the stakeholder interviewed reported a high level of incorrect use and fitting of child restraints within CALD communities. A key issue identified in the overall findings was that there appeared to be some level of confusion about when to transition children into the next sized restraint, with parents generally using their own judgement. This issue seems to be further intensified in CALD communities, as parents are more likely to listen to the demands of a baby or child, rather than to follow legislation (i.e. baby cries in rearward facing restraint, therefore early progression to forward facing restraint). However, listening to the child's demands did not appear to be a significant influence for the majority of the sample.

Parents reported becoming overwhelmed by too much child restraint related information, and find it hard to isolate clear and simple advice relevant to them (mainly parents of young babies). Additionally, as children become toddlers and primary age, they are not directly provided with any information about child road safety. Therefore, they are mainly resorting to what they consider as the easiest option, parent blogs or do 'what their friends did'. As a result parents believe there is a need for more easily accessed information. The survey findings indicated that parents would like more information about when to move children into an adult seatbelt; when to move babies and young children into next type of child car seat; when it is okay for a child to sit in the front seat; and safety information about different types of child car seats. While all of this information exists, it is obviously not reaching the target demographic.

It was interesting to note that the greatest demand for information is among parents with babies. However, parents with babies appear to already have the greatest access to information. They also have the highest levels of knowledge about child restraints laws and recommendations, and the highest levels of compliance as well. Therefore it seems the real area of need is for parents of toddlers and older children, who no longer have information provided directly to them, have lower levels of awareness of laws and recommendations and are less compliant.

Parents reported a preference for online information, with a high level of demand for a simple (government sponsored) webpage containing all the relevant information on child road safety. There was also a need for information to be provided to parents at different stages of their child's development. For example, specific and relevant information could be provided in prenatal classes, followed by at maternal and child health services, and subsequently through childcare, kindergarten and school newsletters.

It was strongly noted during the focus groups that grandparents have little access to information about child restraints and that opportunities should be pursed for providing information directly to them. Some parents of older

children (e.g. 7-12 years) wanted to have information to show to older children to reinforce their own rules about booster seats and sitting in the front seat.

Information dissemination is slightly different for people within CALD communities. Poor English proficiency and often low levels of literacy in their own language means written materials are not appropriate. Additionally, low levels of computer literacy and limited access to computers means focus on online information is not ideal. The best methods for information delivery seems to be face to face education in own languages (e.g. delivery of information sessions with interpreters); use of video, audio, photographic and graphic materials rather than text; partner with agencies where trust has been developed with CALD communities; and during community events (e.g. after church). However, a key issue is how to reach people who don't attend community centre or activities.

Overall, this research has shown that parents want to do the right thing to keep their children safe and most believe they are doing so. Incorrect choice, use and fitment of child restraints is almost always a result of lack of awareness, hence the best way to improve child road safety is by providing more accessible and targeted information and advice for parents and carers aimed at raising awareness and understanding of child road safety issues.

Recommendations

This research has identified the following opportunities for RACV and other road safety agencies to improve parents' understanding of road safety issues, in particular their understanding and application of child restraint laws and best practice recommendations.

- 1. Consolidate and streamline information for parents and carers by developing one simple official Victorian child road safety website. The website could be developed jointly by the Victorian road safety partners. It would need to be endorsed by government agencies for credibility.
- Provide prompts to parents outlining key road safety information as children achieve key milestones (e.g. certain ages). Prompts could be in the form of an email or letter from government, childcare, kindergarten or school and could direct parents to the website.
- 3. Information categorised by the child's age group would be of most assistance to parents.
- 4. The website needs to provide the following clear and simple information about child restraints, including:
 - Laws
 - Best practice guidelines
 - 5 step test for moving to an adult seatbelt
 - · Choice and safety ratings
 - · Installation and lists of installers
 - Ongoing maintenance and checking
- 5. The website needs to provide guidance to help parents and carers identify when their children are ready to walk and cycle independently and how to prepare them.
- 6. Provide information about correct choice, fitment and maintenance of child restraints for grandparents e.g. through printed publications and websites for older people.
- 7. Provide information parents can show children aged 4+ years about use of child restraints, to counteract children's demands not to use a booster seat.
- 8. Consider providing key information about child restraint best practice guidelines in newspapers directing readers to the website.
- 9. Provide child restraint checking days and services, which also provide information about ongoing checking and maintenance.
- 10. For CALD communities, focus on face to face presentations with interpreters, including restraint checking days.



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Appendix A Summary of relevant websites

www.racv.com.au

Child Restraints

Has a section on child restraints, which provides detailed information on selection, and fitting of restraints, including a list of RACV affiliated Restraint Fitters.

Videos are provided (Nino's child restraint challenge) showing how to use each type of restraint and these are provided in seven languages.

Other child road safety issues

The website also includes information about driveway safety, walking and cycling with children and the Sesame Street child road safety resources.

<u>www.vicroads.vic.gov.au</u>

Child restraints

Has a section on child restraints, however it is difficult to find as it is within the Vehicle Safety section.

The website provides information about legal requirements and using child restraints and booster seats. It provides links to RACV and Kidsafe websites for videos and additional resources.

Other child road safety issues

The website includes information about road safety education at early childhood, primary and secondary levels and includes resources including road safety storybooks by Danny Katz which are available as hardcopy books and apps.

www.tac.vic.gov.au

Provides information about child restraint laws and Nino's Child Restraint challenge – three videos to show parents and carers how to make sure babies and children are in properly fitted and adjusted child restraints and booster seats.

www.kidsafe.com.au

Child restraints

Provides the National Child Restraint Guidelines, developed by Kidsafe and Neuroscience Research Australia. Includes 10 essential steps for use of child restraints.

Also provides information about child restraint education sessions and child restraint fitting sessions and links to VicRoads and RACV resources

Other child road safety issues

Provides information about driveway safety, pedestrian safety, the Sesame Street Elmo Stays Safe campaign, including storybook, app and e-book and the No Helmet No Ride primary school competition campaign.

www.roadsafetyeducation.vic.gov.au

Targeted at parents and educators, provides links to relevant websites and fact sheets in relation to early childhood, primary school and secondary school programs.

www.childcarseats.com.au

Information for parents to make the correct and safest choice when choosing a child restraint.

Provides ratings in relation to protection, ease of use, user feedback and price.

This website contains information from The Child Restraint Evaluation Program (CREP) that independently crash tests child restraints and provides star ratings for crash protection and ease of use.

www.childroadsafety.org.au

The Starting Out Safely website. Provides best practice early childhood road safety information for educators and families and best practice transportation policies for organisations transporting children.

Provides information for families on safe transportation of children, using child car seats, children as pedestrians, using bikes and wearing helmets.

Information about child restraints is provided in 22 languages in written (brochure) and audio formats.

www.neura.edu.au/health/child-injury

Neuroscience Research Australia is researching how changes to the types and design of child car restraints can reduce serious injuries and death.

The website includes a link to the National Child Restraint Guidelines, minimum safety requirements of the new child restraint laws and a link to the Child Restraint Guidelines Brochure produced in conjunction with Kidsafe

B Appendix B Summary of relevant resources for parents

Most child road safety resources have been developed cooperatively by TAC, VicRoads, Kidsafe, ELAA and RACV, however in most cases, a key agency has been identified for ease of accessing the materials.

Campaigns and resources:

- Parent role modelling public education campaign (TAC)
- Starting Out Safely Funded by VicRoads, includes story books and resources for the early childhood sector and parents including the books That's the Sound the Street Makes and Click Clack written by Danny Katz.

National practices for early childhood road safety education and Best Practice Policies for the Transportation of Children and The Road Safety Educator Resource have been developed.

An annual Starting Out Safely Road Safety Education Award is presented to an outstanding early childhood educator or service.

Training has been provided to DET assessors on the Best Practice policies.

- ThingleToodle the Starting Out Safely mascot appears in TV Ads and visits 500 funded kindergartens each year to share with the children key road safety education concepts including;
 - o Holding hands with an adult before crossing the road
 - o Stop! Look! Listen! Think! before crossing the road
 - o Helmet wearing
- The ThingleToodle sessions conform to the Early Childhood National Quality Framework.
- Educators must attend a professional development session on how to embed road safety education in their curriculum prior to receiving a TT session. Pre and post educator material is provided. Educational material is also sent to the families following a session.
- Sesame Street Elmo Stays Safe road safety resources (TAC, RACV and Kidsafe) a number of educational resources have been developed for families including an iPad app, e-Book, storybook with associated learning experiences and a television and radio Community Service Announcement.
- Kidsafe's 'No Helmet, No Ride' competition is designed to provide an interactive way for children to learn about the importance of always wearing a helmet when riding a wheeled device. In 2014 the competition called on primary school students to create a video, radio ad or illustrated story around the theme 'No Helmet, No Ride'.

Other parent resources:

- Nino's Child Restraint challenge (TAC and RACV) three videos to show parents and carers how to make sure babies and children are in properly fitted and adjusted child restraints and booster seats.
- List of child restraint fitters (RACV and Kidsafe)
- Road safety storybooks, hardcopy and apps Click, Clack and That's the Sound the Street Makes (VicRoads)
- Ed's Excellent Bike Adventure DVD (VicRoads)

Child restraint brochures:

- Child Restraint Guidelines Keeping Children as Safe as Possible when Travelling in Motor Vehicles (Kidsafe and NeuRA)
- Choosing and using the safest restraint for your child (VicRoads)
- Using restraints. Getting it right every trip (RACV)
- Child restraints and airbags (RACV)
- Tips on buying second-hand child restraints (RACV)

- Travelling with children in cars (translated into 22 languages and in audio format) (ELAA)
- Kidsafe brochure on choosing and using first child restraint currently in development and will be distributed via antenatal classes and maternity hospitals.
- Child restraint guidelines; A guide for parents and carers (Kidsafe)

Walking and cycling brochures:

- A family guide to Bike Ed (VicRoads) translated into five languages
- Bicycle helmet tips for parents and carers Road safety partners



Child restraints

The two organisations that have and continue to undertake the majority of research in Australia relating to child restraints are Monash University Accident Research Centre (MUARC) with studies headed by Dr Judith Charlton and Dr Sjaanie Koppel and Neuroscience Research Australia (NeuRA) with studies headed by Dr Julie Brown and Professor Lynne Bilston.

Monash University Accident Research Centre https://www.monash.edu/muarc

Key areas researched include parents' attitudes, knowledge and behaviours in relation to child restraints and naturalistic studies of restraint fitment and use.

Key findings

- While most parents report feeling confident in their knowledge of child restraints, this does not necessarily translate into correct usage.
- A high proportion of children graduate prematurely from a booster seat to an adult seat belt, including moving straight from a forward facing restraint to an adult seat belt, missing the booster seat entirely.
- Restraint fitting studies show that more that 70% of restraints are incorrectly fitted.
- Children do not sit perfectly still and upright when travelling in a restraint. The amount of freedom allowed by restraints is likely to affect the amount of protection provided.

Key recent studies - Parent attitudes knowledge and behaviours

Koppel, S., Muir, C., Budd, L., Devlin, A., Oxley, J., Charlton, J.L. & Newstead, S.V. (2013c). Parents' attitudes, knowledge and behaviours relating to safe child occupant travel. Accident Analysis & Prevention, 51, 18-26.

- A survey of 273 Victorian parents was undertaken using mail and online methodologies the latter via the RACV website.
- Limitations of this study included an over-proportion of female and well-educated respondents, a low very response rate (6.8%) and reliance on self-report data.

Positive findings:

- 99% reported always restraining children in vehicles however there appears to be a high level of misuse or incorrect fitting.
- 97% were aware that babies must travel in a 'specially fitted capsule'.
- 88% were aware that child restraints should be replaced if in a major collision.

Of concern:

- 53% did not know the appropriate age to transition a child from booster seat to adult seatbelt.
- 20% did not know the appropriate age for child to sit in front seat.
- Only 65% were aware that different standards of safety exist for child restraints.

Fitting and use of child restraints

Koppel, S. & Charlton, J.L. (2009). Child Restraint System misuse and/or inappropriate use in Australia. Traffic Injury Prevention, 10(3), 302-307.

Koppel, S., Charlton, J.L. & Rudin-Brown, C.M. (2013b). The Impact of New Legislation on Child Restraint System (CRS) Misuse and Inappropriate Use in Australia. Traffic Injury Prevention, 14(4), 387-396.

- Investigated the incidence of misuse of child restraints through an Australian CRS/booster seat inspection program conducted between October 2004 and October 2011.
- 2674 observations Australia wide.

Key findings:

- No difference in proportion of restraint misuse pre and post 2009 law changes.
- 79% had at least one incidence of misuse including:
 - o Harness strap errors (41%) twisted, poorly adjusted, incorrectly positioned
 - o Seat belt errors (32%) twisted, incorrectly routed, incorrectly adjusted
 - Misuse prevalence by restraint type:
 - o 87% Convertible (birth to 8 kg)
 - o 84% Forward facing
 - o 81% Convertible (8-26kg)
 - o 62% Booster seats

Koppel, S., Charlton, J.L. & Rudin-Brown, C.M. (2013a). Boosting Appropriate Booster Seat Use. Safety Science, 54, 51–57.

- Investigated misuse across different booster seat types through an Australian CRS/booster seat inspection program conducted between October 2004 and October 2011.
- 792 inspections Australia wide.

Key findings:

- High levels of booster seat misuse. 62% of journeys had at least one instance of misuse, with almost all aspects of the booster seat misused in some way.
- Misuse was highest for booster seats/cushions used in combination with an H-harness (84%), compared to booster cushions (63%) and high back booster seats (55%).
- Significantly more misuse was observed post-legislation.
- Post legislation there were significantly more: H-harness errors (17% vs. 55%), missing gated buckles/locking clips (12% vs. 29%), tether errors (3% vs. 13%) and anchor errors (3% vs. 8%).

Children's behaviour in child restraints

Charlton, J.L., Koppel, S., Kopinathan, C., & Taranto, D. (2010). How Do Children Really Behave in Their Child Restraint Systems While Travelling in Cars? Annals of Advances in Automotive Medicine, 54, 181-191.

- A naturalistic observational study to examine how children are restrained and seated in restraint systems while travelling in a car.
- Families with children aged between 1 and 8 years drove a study vehicle with a discrete video recording system.
- Video data was analysed data for 12 families across 92 trips.
- At least one 'out of position event' was observed on all trips with children out of position approximately 70% of the journey time.
- 'Out of position' referred to having some part of the body outside of the restraint as a result of wriggling, sleeping and leaning out of restraint eg to watch a DVD.

Neuroscience Research Australia https://www.neura.edu.au/health/child-injury

Both the Bilston and the Brown Groups aim to reduce child injury in car crashes by studying why injuries occur and the factors influencing injury outcome. Current research is investigating how the detailed ergonomic design of restraints influences whether children use restraints properly, and also how the labelling of child restraints could be improved to make it easier for parents to use them correctly. The Bilston Group also looks at how the brain, spinal cord and soft organs and muscles respond to the forces during a crash.

Key findings include:

- If a child uses the most appropriate restraint for their size, and uses it correctly, their risk of serious injury in a car crash is greatly reduced. Incorrect or inappropriate use increases the risk of injury to the child in a crash by up to 7 times.
- Best practice child restraint use is low in Australia, particularly among lower socio-economic groups.

- Correct use of restraints has improved post legislation in lower socio-economic groups in Sydney, but has not changed among the broader Australian population. This may be due to greater efforts in information campaigns in these areas, which has been a focus of work conducted by NeuRA.
- Over half of Australian children are not sitting in the right child restraint for their size.
- This is most common in children aged between four and eight, who are prematurely moved into restraints designed for older children and adults.
- Over half of parents are not using the restraints correctly, for example not tightening or untwisting the harness, not adjusting it properly as the child grows, or not having it installed properly in the car.
- This research has contributed to a new type of shoulder height label on child safety seats, which makes choosing the right sized restraint easier for parents, which is now a mandatory requirement for all new child restraints
- Research into accessory child safety harnesses (used alone or in combination with booster seats and attach to
 the vehicle via a top tether strap and to the seat-belt system which is threaded through two loops at the bottom
 of each of the harness' shoulder straps) has shown that they do not offer any benefits above the lap-shoulder
 belt system. In fact, they put the child at a greater risk of slipping out under the belt in a crash. This type of
 harness should only be used if the child is sitting in a position in the car where there is a lap-only belt (versus a
 lap-shoulder belt).

Key recent studies

Keay, L., Hunter, K., Brown, J., Bilston L.E., Simpson J.M., Stevenson, M., Ivers, R.Q. (2013) Child restraint use in low socio-economic areas of urban Sydney during transition to new legislation. Accident Analysis and Prevention. 50. 984-91.

- Interviews were conducted with a parent or carer of 1160 children aged 2–5 years enrolled at one of 28 early childhood centres in low socio-economic areas of urban Sydney.
- Non-English speaking families had less awareness of the new law and poorer knowledge of safety benefits of child restraints.
- They also had lower household incomes and more concerns about cost of child restraints and booster seats.
- Brown, J., Keay, L., Hunter, K., Bilston, L.E., Simpson, J.M. and Ivers, R. (2013). Increase in best practice child car restraint use for children aged 2–5 years in low socioeconomic areas after introduction of mandatory child restraint laws. Aust N Z J Public Health. 37, (3), 272-7.
- This study examined changes in child car restraint practices in low socioeconomic areas of Sydney following the introduction of mandatory child car restraint legislation.
- Children aged 2–5 years were observed in their vehicles as they arrived at observation sites (107 pre-legislation, 360 post-legislation).
- Age-appropriate car restraint use was higher post-legislation than pre-legislation. After controlling for child's age, parental income, language spoken at home and adjusting for clustering, the odds of children being appropriately restrained post-legislation were 2.3 times higher than in the pre-legislation sample, and the odds of them being correctly restrained were 1.6 times greater.

Child Restraint Laws, National Child Restraint Best Practice Guidelines and Recommendations

The National Guidelines for the Safe Restraint of Children Travelling in Motor Vehicles have been developed under the auspices of Neuroscience Research Australia (NeuRA) and Kidsafe They provide best practice recommendations that have been approved by the National Health and Medical Research Council (NHMRC).

The minimum safety requirements of the child restraint laws (2009) are:

- Birth to 6 months: Must travel in a rear facing child restraint.
- 6 months to 4 years: Must travel in either a rear facing child restraint OR a forward facing child restraint with an in-built harness. If a car has two or more rows of seats, then children under four years must not travel in the front seat.
- 4 years to 7 years: Must travel in a forward facing child restraint with an in-built harness OR a booster seat. May not travel in the front seat unless all rear seats are being used by children under seven years.

Road safety organisations including RACV, Kidsafe and VicRoads provide supplementary information advising that these laws specify the minimum ages when babies and children should be graduated to the next restraint type and

that it is safest only to move a child to the next type of restraint when they have outgrown their current restraint.

The RACV website provides detailed information about the Australian standard for child restraints, and best practice guides for choosing restraints, fitting restraints and graduating babies and children to the next restraint type.

This information is summarised as follows:

AUSTRALIAN CHILD RESTRAINT STANDARD AS/NZS 1754:2013:

The law requires parents to only use child restraints that meet the Australian standard. These restraints display an Australian Standards approved sticker.

Features of the current standard include:

- Age and shoulder height marking guides (not a weight based guide)
- · Colour coded seatbelt paths to make installation and use easier
- A design to minimise submarining
- · Booster seats for children up to 8-10 years of age

Note: Booster cushions were deleted from the standard in 2010 and are no longer manufactured. RACV does not recommend booster cushions as they do not provide any side impact or head protection.

Rearward facing restraints from birth to at least 6 to 12 months:

Rearward facing restraints should be used from birth for as long as the baby's shoulders fit between the shoulder height markers clearly labelled on the restraint. There are two types of rearward facing restraints available:

Single purpose restraint	Can only be used in a rearward facing position and used from birth to at least 6 months and until the child fits in it
Convertible restraint	Rearward facing until babies outgrow this position then can be used as a forward facing restraint once the child is too tall for the rearward facing mode

Forward facing restraints from 6 months to at least 4 years

Forward facing restraints should be used once a child no longer fits into their rearward facing restraint. This can be checked by whether the child's shoulders fit between the shoulder height markers clearly labelled on the restraint.

There are three types of forward facing restraints available:

Single purpose restraint	Can only be used in the forward facing position
Convertible rearward/forward facing restraint	Can be used in the rearward facing position then adjusted to the forward facing position for infants who are too big for the rearward mode
Forward facing restraint/booster seat combinations	Used as a forward facing restraint until at least age 4, then the seat can be used as a booster with a lap/sash seatbelt

Booster seats for children from 4 years until 8 to 10 years

Booster seats should be used once a child no longer fits into their forward facing restraint as indicated by the shoulder height markers. Booster seats are used with a lap/sash seatbelt for children who have outgrown a forward facing restraint. Some booster seats are suitable for older children up to 8-10 years of age. These have adjustable head restraints and can accommodate children as they grow.

Children should use a booster seat until they outgrow it. An adult lap/sash seatbelt is designed for people with a minimum height of 145cm. Children who use an adult seatbelt too early are 3.5 times more likely to sustain a significant injury in a crash.

There are two types of booster seats available:

Single purpose booster seats with a back	Are designed to be used with a lap/sash seatbelt and may or may not have a top tether
Forward facing restraint/booster combinations	Used as a forward facing restraints until at least age 4, then the seat can be used as a booster with a lap/sash seatbelt

Seatbelts for children taller than 145cm

Seatbelts are designed for people with a minimum height of 145cm.

The law requires children younger than 7 years to use an approved, properly fastened and adjusted child restraint or booster seat when travelling in a car.

From age 7, children can use a booster seat or an adult seatbelt. Children who use an adult seatbelt too early are 3.5 times more likely to sustain a significant injury, particularly to the head.

5 step test - Is your child ready to use a seatbelt

- 1. Does the child sit all the way back against the seat?
- 2. Do the child's knees bend comfortably at the edge of the seat?
- 3. Does the belt cross the shoulder properly between the child's neck and arm?
- 4. Is the lap belt as low as possible and touching the child's thighs?
- 5. Can the child stay seated like this for the whole trip?

FITTING RESTRAINTS

Research has shown that over 70% of child restraints are not installed correctly (see MUARC studies). A child restraint that has not been fitted properly can result in serious injury or death of a child in a crash.

Rearward facing restraints, forward facing restraints, and some booster seats need to be attached **via a top tether strap to an anchor point** in the car. Typically, the anchor point can be found on the parcel shelf in sedans, and on the floor area in station wagons, vans and hatchbacks. Some station wagons may have the anchor point on the inside roof area. Depending when a car was manufactured this will be either a special anchor bolt or anchor fitting. For the location of anchor points in your vehicle, refer to your owner's manual. **Ensure that a luggage hook is not confused with an anchor point.**

Ensuring a restraint is fitted correctly:

- If possible, fit the restraint to the centre position of the rear seat, because it will offer better protection in a side impact crash.
- Every time the restraint is used check that the top tether strap (if there is one) is firmly connected to the anchor point.
- Every time the restraint is used make sure there are no twists in any straps or belts, and that these are taut and firm, but not too tight and rigid.

ISOFIX

The latest version of the Australian Standard for child restraints (AS/NZS 1754:2013) has an option for manufacturers to produce ISOFIX compatible child restraints. ISOFIX is an alternative way to attach a child restraint to a vehicle, without a seatbelt.

ISOFIX compatible child restraints have been introduced as another option for how child restraints can be fitted to cars – not because of any concerns with the safety of the current range of child restraints. There is strong evidence that Australian child restraints that use the vehicle seatbelt and top tether strap provide excellent protection to children, even in very high severity crashes.

Child restraints that use the vehicle seatbelt and top tether strap will continue to be available. Australian ISOFIX compatible child restraints will just be another option to choose from. ISOFIX compatible child restraints will also still have an option to allow them to be fitted with a seatbelt.

There is still potential for incorrect use of ISOFIX compatible child restraints, so it is important to take care when fitting and using child restraints, no matter the type.

All child restraints sold in Australia must comply with the Australian Standard and display and Australian Standards sticker. It is illegal to use an overseas model or a restraint that doesn't meet these requirements.

Child pedestrian and cycling issues

Child road deaths and hospitalisations in Australia and Victoria

The Road Trauma Australia Statistical Summary (2014) from the Department of Infrastructure and Regional Development, Bureau of Transport, Infrastructure and Regional Economics, provides the following data for children under 16 years:

- In 2014, there were 15 deaths in Victoria and 65 Australia-wide, with a general downward trend over the previous ten years, although deaths in Victoria increased from 8 in 2013.
- Of the 65 deaths in Australia in 2014, the majority were passengers in vehicles (63%) or pedestrians (26%).
- Annual fatalities in 2014 per 100,000 were 1.3 overall, 1.2 for males and 1.4 for females, although the trend in previous years was higher for males.
- In 2012 in Australia, 3077 children were hospitalised as a result of road trauma, with a downward trend since 2008.

Child pedestrian trauma in Victoria

Oxley, J., Hoareau, E., Corben, B., Logan, D., & Devlin, A. (2012). Understanding the challenges facing child pedestrian trauma in Victoria, 2000-2010. Journal of the Australasian College of Road Safety, Special Issue on Child Injuries, 23(2), 23-29

- Between 2000 and 2010, there were 8178 police-reported pedestrian serious casualties in Victoria, of which 1514 (19%) were children aged 17 years and under.
- Children aged 13 to 17 years are at high risk, compared with younger age groups of children, but at lower risk than adults aged 18 years and over.
- The main purpose of the report was to examine differences between age groups; hence the data were expressed in percentage terms, so that each of the age groups can be compared relative to each other. Absolute numbers or risk rates were not provided in the report

Key findings:

- Males were at higher risk of fatal or serious injury in all age groups, compared with females, but particularly so for younger age groups up to 12 years of age where males comprised approximately 65% of serious casualties.
- Crossing the road is the most problematic movement for child pedestrians in all age groups.
- The majority of child pedestrian serious casualties occurred on the carriageway where children were attempting to cross and were struck by either by a nearside or far side approaching vehicle (approximately 30%, respectively). In addition, 16% were emerging from behind parked vehicles and were struck by a nearside vehicle. Approximately 4% of children were struck while playing or standing on the carriageway, while 3% were struck on a driveway.
- Younger children were more likely to be involved in collisions when emerging from behind parked vehicles onto the path of an oncoming vehicle. Because of their small stature, they have greater difficulty seeing over parked cars and other obstacles, and are in turn more easily hidden by them, making them more difficult for drivers to detect
- For all age groups, the majority of collisions occurred during the afternoon between 2.00 and 4.00 pm. This was particularly so for children aged between 5 and 12 years, suggesting that many collisions occur while walking home from school, or playing in the street after school.
- Approximately 60% of collisions occurred while crossing mid-block sections of road, with the remaining 40% occurring at intersections.
- The majority of collisions involving children occurred while crossing roads zoned at either 50 or 60 km/h. The evidence is clear that speed has a great impact on pedestrian safety and that pedestrian safety is highly compromised when interacting in traffic where speeds are higher than 30-40 km/h.
- The report identified potential countermeasure to improve the incidence of child pedestrian trauma relating to safer road users, safer vehicles, safer roadsides and safer speeds. It was noted that these findings support the critical need for moderating vehicle speed in areas of high child pedestrian volumes.

Parents, beliefs, attitudes and behaviour

Muir, C., Devlin, A., Oxley, J., Kopinathan, C., Charlton, J.L. & Koppel, S. (2010). Parents as Role Models in Road Safety. Melbourne, Australia, RACV.

- An online and mail survey was conducted with 273 parents of children aged between 3 and 10 years (primarily recruited through the RACV membership database).
- The findings relating to restraint use are reported in other papers cited in this review.

Key findings:

- The findings revealed a generally positive attitude to children's road safety and some understanding of the important role that parents play in protecting and teaching children road safety.
- The most common way parents believed children learned road safety skills was from parents (77%) followed by school (14%) and friends (8%).
- 96% of parents indicated that they thought their own driving behaviour would influence their children's behaviour on the road through role modelling.
- The average age at which parents believed children can cross the road unsupervised was 9.9 years.
- The age at which parents believed children can ride a bicycle unsupervised was 10 years.
- 90% of parents reported that their children always wear a helmet when riding a bicycle.
- Parents lacked some awareness of the importance of teaching road crossing skills to young children, and some parents were less involved in their children's traffic education than they could be, despite the fact that they are in a prime position to influence their children's behaviours in traffic.

Soole, D. Lennon A., & Haworth N. Parental beliefs about supervising children when crossing roads and cycling. International Journal of Injury Control and Safety Promotion, 18(1), 2011, 29-36.

- A telephone survey was conducted with 147 parents of children aged 5-9 years in Queensland.
- Questions addressed beliefs about preventability of injury, appropriate ages for children to cross the road or cycle independently and the frequency of holding children's hands while crossing the road.

Key findings:

- Two thirds of respondents gave ratings of 7 or more/10 in relation to agreement that accidents and injuries on the road are preventable while 87% gave ratings of 7 or more out of 10 in relation to agreement that they could make a difference to their own safety on the road.
- Most parents (85%) indicated children should be 10 years or older before they could cycle independently to school.
- Around two thirds (68%) indicated that children should be at least 10 years old before crossing a local street alone.
- The younger the child, the more likely the parent was to report holding their child's hands all or most of the time.
 - o All of parents of 5 year olds reported holding the child's hands all or most of the time.
 - o 81.4 of parents of 6 year olds reported holding the child's hands all or most of the time.
 - o 75.9 of parents of 7 year olds reported holding the child's hands all or most of the time
 - o 59.1% of parents of 8 year olds reported holding the child's hands all or most of the time
- There was a small effect of gender, with parents more likely to hold a boy's hand than that of a girl.

Appendix D

Verbatim comments of main concerns include:

Being unsure about which side of the car to put them on (baby aged under 12 months).

My mother in law will happily pick up children and take them places but I had a massive issue with the fact that the car seats hadn't been fitted securely (children 1-3 yrs).

I don't know when my son can go into a booster seat... I have no idea (children 4-7 yrs).

I was a bit confused as to whether he should sit in the front, just from a safety point of view I didn't really know. I just judged by his length (children 8-12 yrs).

I think I am mostly concerned about how fast some drivers go around the local area, including the school zone (children 8 -12 yrs).

A lot of drivers aren't aware that it is a local school precinct (in our area) (children 8-12 yrs).

Verbatim Comments relating to choice and purchase of restraints

Children under 12 months

ISOFIX was easier (baby aged under 12 months).

ISOFIX seemed safer than a seatbelt (baby aged under 12 months).

I'm aware that it's much safer to have the child in the middle and that's not where ISOFIX goes, so I've avoided it (baby aged under 12 months).

We wanted one that would fit in the pram easily (baby aged under 12 months).

We took the approach that if the seat was on the market she shouldn't have any safety concerns (baby aged under 12 months).

We have a really small car so it was important to get the slimline one (baby aged under 12 months).

We got a capsule because it fitted in the pram. That was the main concern (baby aged under 12 months).

I actually didn't know there was a car seat (other than a capsule) you could use from birth, I didn't do my research (baby aged under 12 months).

We were very concerned about buying a cheap one (baby aged under 12 months).

I decided what I wanted before I went and only went to the store to pick it up (baby aged under 12 months).

Children 1-3 years

I've wondered whether to go back to rear facing, it's so much easier to put her in forward facing though (children 1-3 yrs).

Her expensive one is a lot harder to do up, it's really hard for me to get it tight. The design isn't great (children 1-3 yrs).

We never had them rear facing, we didn't really know. We though it was safe and more secure to have them forward facing (children 1-3 yrs).

I've never used a capsule because I found them too heavy to bring out of the car and then carry around (children 1-3 yrs).

I just wanted the cheapest one (children 1-3 yrs).

The website helped (CREP) but it was still a lot of guesswork because it was our first child (children 1-3 yrs).

If it meets the Australian safety standards, then surely it's safe (children 1-3 yrs).

Children aged 4-7 years

We're restricted by the fact that we can't fit three seats across the back. We're also restricted by the fact that I don't want to buy a car seat every time we get to a different stage (children 4-7 yrs).

Baby Bunting was good because you can get someone to install it too (children 4-7 yrs).

We went to Baby Bunting only because there is really a lack of similar stores with choice. The others are just really tiny stores (children 1-3 yrs).

I got some stuff second hand from a friend and all I knew was to see if it had the red tick for Australian standard. So I put a lot of trust in that, now that I think about it- what does that actually mean (children 4-7 yrs)?

We asked friends who had had experience (children 4-7 yrs).

Verbatim comments about graduating to next restraint included

I am going to move to forward facing as soon as possible, because she really doesn't like being in the car (baby aged under 12 months).

I don't know what you do if you hit the markers and you're not six months (baby aged under 12 months).

I actually had no idea about these markers, and I actually thought it was once they get too big for the capsule or when you want you can switch them over (baby aged under 12 months).

We went forward facing as soon as possible...it was easier and that's how his older brother had it (children 1-3 yrs).

It (more room for movement in front seats) was definitely a factor in switching to forward facing (children 1-3 yrs).

I had an incident where another child made fun of mine for what she called a 'baby seat' (children 4-7 years).

The seatbelt wasn't quite fitting right and it just seemed like time to upgrade (children 4-7 years).

He just kept undoing himself so we moved to the booster. We felt that was safest (children 4-7 years).

I was thinking of transitioning just to the booster cushion...just the bottom half (children 4-7 years).

My oldest is quite tall at nine-and-a-half so she sits in the front seat (with an adult seatbelt), but they're all in the back until they turn 8 (children 8-12 yrs).

She was getting a bit of a ribbing from her friends but I just said "too bad, that's how we do it." They are very aware that they are different to the other kids and there is a lot of peer group pressure. He hated it (being in a booster seat) though because he was called a baby (children 8-12 yrs).

Verbatim comments about laws and guidelines

I really thought it was height and weight, not age (children 1-3 yrs).

I've got no idea what the legislation is (children 4-7 yrs).

Why wouldn't the laws match the guidelines? It seems odd that they would be different (children 4-7 yrs).

I think it's a bit confusing- the guidelines seem more stringent than the law (children 8-12 yrs).

Verbatim comments about installing and checking restraints

It's not set and forget, you have to constantly make sure the straps are tight. I freak out because they slip without it being used (baby aged under 12 months).

Also the trusting of the husband...He's admitted he can't get it as tight as the professionals (baby aged under 12 months).

I installed the ISOFIX myself but I'm still constantly worried about whether I've done it right (baby aged under 12 months).

We thought it was supposed to have some give in it...we haven't done any research at all (children 1-3 yrs).

It was good to have them in the middle (back seat) because you could comfort them (children 1-3 yrs).

The first one was RACV approved and installed (children 4-7 yrs).

I didn't feel confident enough for either of us to do it (children 4-7 yrs).

Verbatim comments about travelling in multiple vehicles

I didn't trust my parents (with my child) in the car at all...they hadn't had enough experience (baby aged under 12 months). If the kids need to travel with grandparents, we swap cars (children 1-3 yrs).

I think the hard bit is, if all the grandchildren are under four it's fine but if they're not you're in trouble. The size

difference is hard (baby aged under 12 months).

Another issue was that my son was allowed to sit in the front a lot earlier with his dad than he was with me (children 8-12 yrs).

I felt more comfortable about the car seat being fitted incorrectly in someone else's car than my own. I guess I didn't feel the responsibility so much (baby aged under 12 months).

We've always just moved the seat to the other car, which is a lot easier now with a booster (children 4-7 yrs).

Verbatim comments about seeking information on child road safety

Children under 12 months

If you could find a way to get information earlier, before you have the baby (baby aged under 12 months).

If I had have known there was a car seat (not capsule) that you could have from birth I would have gone with that, but I thought it fitting in the pram was important at the time (baby aged under 12 months).

I made sure the website I was researching on was Australian (baby aged under 12 months).

Children aged 1-3 years

We didn't want to have the three car seats in the back so we were interested in finding out how early the oldest could stop (children 1-3 yrs).

The point at which you can move them or what position they should be in when, that could be clearer (children 1-3 yrs).

They don't seem to factor in what car you're driving. Surely certain seats are more suited to certain cars? (children 1-3 yrs)

I can't believe there's not an ad on TV about it! (children 1-3 yrs).

Children aged 4-7 years

Perhaps at each level of education - when they start kinder you get specific information, and the same when they start school (children 4-7 yrs).

One of issues is that there is a certain urgency at the beginning. Once that urgency tapers off, because all of our information doesn't come from one source, crucial issues are watered down (children 4-7 yrs).

There should be one website that specifies everything (children 4-7 yrs).

You don't really go back to the original source to check again if you have multiple children in school (children 4-7 yrs).

Children aged 8-12 years

That (CREP) would be great for the grandparents...(children 8-12 yrs)

We had that about car restraints in our school newsletter. I pointed it out to my son because it comes from someone else, not the parent, which sent the message ...(children 8-12 yrs).



Royal Automobile Club of Victoria (RACV) Ltd ABN 44 004 060 833 550 Princes Highway Noble Park North Victoria 3174 Australia RACV MemberLine 13 RACV (13 7228)

