

# OLDER PERSONS ROAD SAFETY NEEDS ANALYSIS FOR THE ACT

For



NRMA-ACT Road Safety Trust

By



Connecting Over 50s  
Throughout Australia

## **Acknowledgments**

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# 1 EXECUTIVE OVERVIEW

## 1.1 BACKGROUND

The ACT has undertaken a significant number of projects relating to road safety and older drivers. The NRMA-ACT Road Safety Trust has funded many of these and some have been undertaken by a variety of organisations. While there is little doubt that these projects have collectively and individually met a wide range of the needs of the older community and contributed to the ACT's excellent road safety record, there has been no way of ensuring that these individual projects truly met the overall needs of the older community.

Furthermore, while the ACT does have a Road Safety Strategy, in which older road users are named as a vulnerable road user group, a specific and detailed strategy that directly addresses the road safety needs of older road users has not been developed.

Given that the ACT's population is ageing faster than any other Australian jurisdiction, it was considered timely to analyse what has been done within recent years and to consult widely with the older community and road safety experts, identifying the driving (and other transport usage) patterns of older people, the transport needs of older people, to determine the level of awareness and impacts of road safety initiatives and to produce clear indications of the on-going road safety development needs of older people in the ACT.

It is hoped that this project will benefit the ACT community by better targeting road safety expenditure, increasing the community's awareness of the road safety needs of older people, reducing road trauma, reducing the impact of the ageing ACT community on road safety, and encourage the ACT to develop an older person's Road Safety Strategic Plan.

This project, conducted by COTA (ACT) and supported by funding from the NRMA-ACT Road Safety Trust, is designed to scope current road safety issues as they pertain to older road users in the ACT. It consists of three distinct phases:

- Phase 1: The review phase comprised analysis of the various road safety projects relating to older people. This phase has two elements. One reviewed projects within the ACT undertaken during the last 5 years. The second aspect covers a literature review of material relating to older people and road safety, both in the ACT and other Australian jurisdictions.
- Phase 2: The consultative and survey phase included wide consultation with the ACT community and road safety experts. This focused on road safety needs for older people in the ACT. It included a survey of approximately 5% of the population aged 65 and over, focus groups and individual consultations as appropriate.
- Phase 3: In the analytical phase, the outcomes of the previous two phases were analysed and the gaps and needs of the older community identified. A wide-ranging set of discussion points and recommendations were developed for carrying road safety forward for this group in the next 5 years.

## 1.2 GENERAL OUTCOMES

### In Brief

The ACT enjoys the best road safety record of all Australian jurisdictions. To maintain and continuously improve on this good record the ACT needs to consistently devise, promote, deliver and evaluate its activities. Part of this process must include seeking out new initiatives to address road safety issues and to anticipate, assess and address any changes to the variables within the road safety framework (users, roads, vehicles and systems) that may impact on our safety. One pair of factors, which is currently foremost in awareness among road safety specialists, is that our population is ageing rapidly and older people are particularly vulnerable as road users.

In brief, road safety activities and initiatives in the ACT are on par with those in other Australian jurisdictions. Quality programs, publications and on-line information are available and promoted to older road users. Generally the mix of programs reflects the areas of highest casualties among older ACT road users – drivers and their passengers.

The ACT accident and fatality statistics for older pedestrians, bicyclists and motorcyclists are low. If taken in isolation they would not indicate the need for additional targeted road safety initiatives. Nevertheless the potential for shifts in the popularity of and consequential changes in transport needs, especially as older people retire from driving, suggests a broad and strategic approach to road safety for this group.

The latest research on older driver behaviours and safety reveals new insights into the causal factors for high road casualties among this group. Whilst many current programs and projects are valuable, a revision of their content is needed as these programs and projects do not fully reflect the causal factors in casualties among this group.

Further questions have emerged from this analysis about whether current initiatives are sufficiently visible and appropriate to their audience to be influential in changing behaviours and having positive effect on outcomes. These findings and “gaps” in our



knowledge have been explored, confirmed and developed through the extensive consultation process.

### Key Findings

- ◆ The personal motor vehicle remains the principle mode of transport for older people in the ACT. Over 80% drive once a week or more and a further 25% are passengers in their own vehicle. The design of Canberra and limited alternatives make the ability to drive and the use of a motor vehicle critical for mobility. This makes driving a key focus of road safety.
- ◆ Older road users are very concerned about the impatience of younger drivers. They are making adjustments for changes in their own ability and this is in line with recommendations of road safety authorities and in accord with their own experience. The older people are often distressed and feel threatened. For example, on average, they drive about 5 km/h below the maximum speed limit and in turn experience tailgating. As pedestrians they feel threatened by cars. For example, when using a pedestrian crossing many drivers of cars do not allow them to exit the crossing before driving through. Some motorists do not wait at a crossing to let them cross.
- ◆ Most older drivers have held a licence for more than 40 years. On their side is maturity and experience. Against this must be weighed the length of time since skills were learned and the effects of rule changes, motor vehicle changes and impacts of ageing on their skill. In the main, older drivers welcome the opportunity to update their skills.
- ◆ A significant proportion of older people drive vehicles that compromise their safety and leave them vulnerable in an accident. Further, a significant number believe that "older stronger vehicles" will be safer in an accident. Overall messages concerning modern vehicle safety and the importance to older people are only partially understood. In addition a significant proportion of people misses them. There is a need to intensify efforts to communicate this issue to older people.
- ◆ There is a highly mobile sub-group of older people who make regular interstate journeys. While most driving within the ACT is urban, we need to

communicate suitable road safety messages about long-distance and interstate driving to this group.

- ◆ There is a significant dilemma in relation to older women and driving. In couple relationships, men take responsibility for most of the driving. This leaves women potentially de-skilled and lacking confidence when they need to assume greater responsibility for driving. Given that women live longer than men, women are likely to need their driving skills when their partner become sick or dies.
- ◆ Older people are not planning to retire from driving. The reality is that for most of us there will come a time when we need to surrender our licence. Older people need to be encouraged to be more proactive and strategic in planning to retire from driving and to explore alternatives in a staged process.
- ◆ While older drivers attempt to self-regulate their on-road behaviours to account for age related changes, their attempts are linked more to personal experience than to concrete knowledge about the changes. While many modifications are appropriate – such as avoiding peak-hours and reducing night driving, other potential changes, such as vehicle safety, maintenance of driving skills and planning for alternatives to driving, are not considered. We need to better inform older people about ways to reduce the risk of injury or death.
- ◆ Road engineering solutions, which on the surface may appear well planned, can create difficulties for older people. Clear examples of this are the design of roundabouts and increased signage, both on-road and roadside. This project confirms the findings of the Australian Transport Safety Bureau, which included the need for engineering solutions to take into account the impacts of ageing.
- ◆ For older people, pedestrian activity is second only to driving as a preferred mode of transport. Footpaths are the source of a variety of concerns. They include the lack of paths in some suburban areas, uneven and broken paths, and obstacles on pathways including overhanging trees and parked vehicles and inadequate lighting. Given that more than one third (1/3) of pedestrian

fatalities are older people and that increased pedestrian activity is useful from a health and wellbeing perspective, we need to provide high grade pedestrian solutions for older people so as to maximise their walking opportunities while minimising risk. Further, we need to educate older people about pedestrian risks and their need to make additional allowances for age related changes that impact on them when negotiating traffic.

- ◆ Health and wellbeing is a significant issue for older people. There is considerable scope for increasing their fitness level. A result of the reduced frailty will be a reduction in road trauma. This effect is important for drivers and passengers in cars, and also for pedestrians. It is important to actively pursue health and fitness as a road safety measure.
- ◆ There are insufficient alternatives to provide for the needs of those who are seeking to reduce their dependence on cars or retire from driving. The ACT needs to develop policies and programs to facilitate increased reliance on alternatives to private transport. In particular, there is significant scope for ACTION to both increase patronage and assist in road safety by specifically targeting services to meet the needs of older Canberrans.
- ◆ Road safety has been inadequately co-ordinated in the ACT. It appears that responsibilities for programs and activities are divided amongst several areas with no responsibility for overall coordination. There is a need to ensure that road safety and other related activities are collated and coordinated to ensure that a single point of reference is maintained.
- ◆ While our existing programs and materials are reaching their target audience, they are not designed or delivered in ways that will provide high uptake. In particular, we need to ensure that materials are prepared by road safety experts in conjunction with marketing professionals so as to ensure design issues and comprehension is addressed. Further, better targeting is required and this can be achieved through improved timing and delivery mechanisms. Existing registration mail-outs, television advertising and print media can be used more effectively.

## 1.3 DATA SNAPSHOT

- ◆ 4000 surveys were distributed to a randomised sample of the 65 and over population of the ACT.
- ◆ 1460 responses were received, representing nearly 5% (4.8%) of the older community.
- ◆ More men than women responded (50.8% of respondents were male).
- ◆ Nearly 12% of respondents came from Culturally and Linguistically Diverse groups with over 50 different first languages.
- ◆ The personal motor vehicle is the preferred option with older people making over 13,000 journeys per month as the driver and a further 3000 journeys as a passenger.
- ◆ More than 80% of respondents use their car once a week or more.
- ◆ Most respondents were driving between 50 and 300 kilometres per week.
- ◆ Most journeys are relatively short; the average journey appears to be about 30 kilometres.
- ◆ Almost half (43.3%) of respondents had journeys of more than 500 kilometres in the last year and nearly three-quarters of respondents (73.4%) made journeys of over 100 kilometres in the previous year.
- ◆ Drivers over the age of 65 make very few journeys with more than a single passenger in the car.
- ◆ Walking is the second most important mode of transport with over 7,000 journeys per month.
- ◆ Use, availability and suitability of other forms of transport, including public transport are much more limited and lower than might have been expected.
- ◆ The vast majority (85%) hold a licence to drive.
- ◆ More than 75% have held their licence for 40 years or more.
- ◆ More than one-quarter (27.9%) drive smaller vehicles which can increase risk in an accident.
- ◆ Almost one in five (18.1%) of their vehicles are more than 15 years old.

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- ◆ The main reasons older people drive includes: shopping, social, access to health services, and other appointments. Although a large range of other activities rate highly.
  - ◆ 38.7% of respondents are concerned about the impatience of other drivers.
  - ◆ Roundabouts, complex road markings, and lack of signage are each of concern to about 15% of respondents.
  - ◆ As drivers (when compared to when they were 40):
    - 58.7% of respondents report driving less at night;
    - 50% of respondents report avoiding peak hours;
    - 49.1% of respondents report attempting to keep a greater distance between themselves and other cars;
    - 48.8% are less likely to drink before driving;
    - 41% drive slower.
  - ◆ As pedestrians:
    - 55.4% are concerned about uneven or broken paths;
    - 44.5% are concerned about their health and fitness;
    - 43.6% are concerned about slippery paths;
    - 39.4% are concerned about traffic speed.
  - ◆ 52.9% expect to use their own vehicle more in the next 5 years.
  - ◆ 64.4% avoid using taxis due to their cost.
  - ◆ 34.5% found ACTION buses to be convenient.
  - ◆ 40.7% avoid ACTION buses due to the time taken for a journey.
  - ◆ 5.5% sometimes feel unsafe as a passenger in their own car.
  - ◆ 12.5% sometimes feel unsafe as a passenger in a car driven by family or friends.
  - ◆ 12.7% sometimes feel unsafe as a pedestrian.
  - ◆ 83.1% were taking some form of medication.
  - ◆ 35.1% were taking more than 3 medications.

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- ◆ 5.9% of respondents reported having an accident in the last 12 months.
  - ◆ 36.4% were aware of the *Older Drivers Handbook*.
  - ◆ 10.1% were aware of the *Retiring from Driving Handbook*.
  - ◆ 22.5% were aware of the bicycle awareness campaign.
  - ◆ 28% were aware of the roundabout rules campaign.
  - ◆ 31.6% said that information with licence renewals would be effective in reaching them.
  - ◆ 29.6% said that information with registration renewals would be effective in reaching them.
  - ◆ About one third (1/3) of respondents think that they have more accidents than their younger cohorts despite the reality that they have less.
  - ◆ About one third (1/3) of respondents are not aware of the level of risk they experience as pedestrians.
  - ◆ Over half (56%) fail to recognise that they are more likely to die in a road accident than those aged 40-65.
  - ◆ About one-third (1/3) are unaware of their risk in making right hand turns across traffic.
  - ◆ About one third (1/3) of respondents are unaware of the potential impact of non-prescription medications.
  - ◆ Over 17% do not realise that exercise can improve their chances of survival and reduce their injury risk in a road accident.
  - ◆ Over 80% expect their doctor (GP) to advise them if they are unsafe to drive.

## 1.4 KEY NEEDS & RECOMMENDATIONS

### 1.4.1 SAFE ROAD USERS

The shortcomings identified in this study include:

- a. Older road users do not sufficiently understand that ageing increases their risk as a road user.
  - i. They do not understand the link between mental and physical wellbeing and their safety as road users.
  - ii. They are not sufficiently aware of the impact of frailty on their vulnerability in a road accident.
  - iii. Older women do not understand that they are at increased risk as compared to men due to their natural greater frailty.
- b. Older road users have not made the link between exercise and fitness as a means to help overcome their increased risk.
- c. There is a problem with encouraging greater pedestrian activity as increased exposure as a pedestrian can raise risks of a road accident. However, a key method of increasing fitness is walking and it seems to be the preferred option by most older people. A balance between increased fitness and wellbeing and pedestrian risk is important to reduce vulnerability to an accident.
- d. Design issues relating to footpaths and shared pathways influence both the willingness of older people to exercise by walking and their vulnerability as a pedestrian.
- e. Couples do not realise the long-term impact of the loss of skills and confidence of women drivers when the male partner does the majority of the driving.
- f. Older people are concerned that others do not respect and tolerate their attempts to take account of their ageing and adjust their driving habits in line with road safety messages.

## Recommendations

Older people be informed about the frailty and health risks pertaining to road safety and be encouraged to become actively involved in improving their health and fitness as a road safety measure.

Messages about pedestrian safety be developed and that they include specific information about risk factors and older pedestrian safety.

Older people be encouraged to undertake physical exercise, including walking as a way of increasing health, wellbeing and safety on the road.

Cyclists and other users of shared pathways be informed about the needs of older users of these pathways and encouraged to take actions which will minimise the risk of "startling" older users.

The message "women need to maintain their driving skills and confidence by driving regularly" and the reasons why be conveyed to older couples.

Education campaigns be undertaken to inform the public about the good record of older road users and deliver messages about the specific road safety needs of older people.



### **1.4.2 SAFE ROAD ENVIRONMENT**

The shortcomings identified in this study include:

- a. For older people, the road environment is not limited to roads but also includes footpaths, bus shelters and other transport related issues. This integrated approach is not always reflected in road safety strategies and plans.
- b. There is inadequate provision of safe footpaths, which would enhance walking options and help keep people off the road surface and potentially encourage more walking.
- c. The complexity of signage both on-road and by the side of the road is a concern for older people.
  - i. Too much means confusion and an inability to make choices.
  - ii. Too little means an inability to decide where they should be or where they are going.
- d. Road speed variations and speed signage are a problem. Concerns were raised about the inconsistent rating of roads, variations in speed over a short distance and the increasing number of signs that only appeared on one side of the road. The view of single signs can be blocked by another vehicle.
- e. The design of roundabouts needs to take into account the particular needs of older people. This includes any blockage of vision, issues relating to concrete lips, edge visibility, and tightness of turning circumference.
- f. The increasing complexity of the road environment is a concern for older people. It is at odds with research relating to road design for older road users.

## Recommendations

ACT authorities take greater account of the wider ramifications of road and road related design and that an integrative, wholistic approach be taken.

The NRMA-ACT Road Safety Trust and the relevant sections of the Department of Territory and Municipal Services recognise that for older people, pedestrian safety is a significant and developing area of concern that needs specific focus.

Department of Territory and Municipal Services officers involved in Road Safety liaise with officers from Planning and Land Management to ensure integration of road safety needs with other planning and development needs related to "Safe Routes".

"Safe Routes" analysis be undertaken throughout Canberra and that road safety aspects be made a key focus of further "Safe Routes" projects.

The following issues identified within the "Safe Routes Project" and by focus group participants for this project be addressed:

- ◆ Street lighting is adequate and not hindered by trees and other foliage;
- ◆ Footpaths are provided on both sides of the road so as to minimise the need to cross roads;
- ◆ That where paths are shared with cyclists and other users that they be widened to allow cyclists to pass pedestrians safely;
- ◆ Cracks, ruts and uneven paths be repaired and levelled;
- ◆ Signage be included on major pedestrian pathways;
- ◆ Safe road crossings are clearly marked for both pedestrians and vehicles on all major suburban roads.

The timing of crossing signals on major intersections is reviewed to take account of the needs of older pedestrians.

The ACT fully adopt the measures and suggestions for change presented in the Road Environment and Design for Older Drivers: Stage II<sup>1</sup> publication and ensure that the training opportunities offered by Austroads in relation to this be fully utilised by ACT authorities.

A particular suggestion by Austroads which needs urgent attention in the ACT is that the kerbs of all roundabouts be painted white and have reflective beading to enable ready visual identification regardless of lighting or weather conditions.

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<sup>1</sup> Road Environment and Design for Older Drivers: Stage II, Austroads, 2004

### 1.4.3 SAFE VEHICLES

The shortcomings identified in this study include:

- a. Older people are generally aware of vehicle safety features but they have not connected this to themselves personally in terms of frailty and risk.
- b. A small but significant cohort of older people believes that old "strong" cars which do not crumple in an accident are safer. They do not understand the transference of impact forces into their bodies in the event of an accident. Nor do they fully understand the value of ABS brakes, collapsible steering wheels and other safety features.

## **Recommendations**

A fact sheet about car safety features and the importance to older people be developed and sent to all registered owners aged 65 years and older with cars older than 10 years.

Older driver educational materials and programs include information about vehicle safety features and ANCAP data and the importance to older road users.

The ACT mandate the provision, at the point of sale, of information about ANCAP data and vehicle crashworthiness ratings to all prospective purchasers for non-private vehicle sales.

#### 1.4.4 SAFE SYSTEMS

The shortcomings identified in this study include:

- a. When considering older people, there is a need for a wholistic road safety approach. The issue is not just drivers and passengers, but also includes: pedestrian safety, personal fitness, and alternative transport strategies.
- b. Older people are not a single homogenous group and as such, road safety messages need to take account of these differences in order to be effective and to reach the right people at the right time.
- c. Traffic authorities need to consider alternatives to the private motor vehicle as a road safety initiative. Providers of such services need to view the provision of services to older people as an essential service (as opposed to one of a number of alternatives). To this end:
  - i. ACTION as the key public transport provider has a key role to play in this issue.
  - ii. There are significant opportunities for ACTION to design timetables and systems to encourage and maximise use of buses by older people.
  - iii. Strategic early marketing could increase potential ACTION usage both as an adjunct to driving, and when driving is no longer an option.
  - iv. This should be seen as a Community Service Obligation.
- d. Initiatives are required to encourage and enable drivers to retire from driving at appropriate times. This includes:
  - i. Information about continuing to drive when no longer safe.
  - ii. Provision of adequate alternatives.
  - iii. Developing familiarity with use of alternative forms of travel.
  - iv. Assistance in identifying and utilising alternatives at the point at which they retire from driving.

- e. General Practitioner's remain the major instigators of retiring from driving and older people believe that that their health professionals, particularly their GP will tell them when it is time to retire from driving.
  - i. GP's would benefit from greater ongoing support and encouragement in this difficult role.
  - ii. GP's are limited in their ability to identify skill deficits and attitudinal issues with older drivers.
  - iii. GP's need to be able to refer drivers to skills refresher programs to enable the individual to confirm or revise their on-road skills.
- f. The existing educative methods lack important and specific information and approaches to road safety. The messages provided to older people about road safety are only minimally meeting their purpose.
  - i. There is a need to develop a coherent strategically designed process to maximise the impact.
  - ii. Issues that need to be addressed include:
    - 1. Content
    - 2. Presentation
    - 3. Tone
    - 4. Volume of material
    - 5. Mode of delivery
    - 6. Repetition
    - 7. Timing of delivery
    - 8. Consistency
- g. The ACT office of road safety needs a broader brief to enable it to provide integration of policy and operational systems.
- h. The ACT needs a Strategic Plan for Road Safety for Older People.

## Recommendations

A wholistic, integrative approach to road safety and transport needs for older people in the ACT be applied in the ACT Road Safety Strategy and the ACT Road Safety Action Plans.

Road safety strategies are developed with the specific needs of older road user sub-sets in mind. In particular: women, men, young older road users, old older road users, people from culturally diverse backgrounds, IT literate/non IT literate be recognised as sub-groups.

The ACT develop a specific Older Persons Road Safety Strategic Plan in order to develop and guide road safety planning and ensure incorporation of the broad mobility needs of this group.

The "Keeping Seniors Mobile"<sup>2</sup> model be adopted and its approach incorporated into the proposed Older Drivers Strategic Plan and the ACT Road Safety Action Plans.

ACTION Buses undertake a review of the needs of both existing and potential older patrons to identify barriers to their greater utilisation of public transport.

That the ACT investigate expanding alternatives to public transport such as community buses and "on-demand" transport options for older people and consider such in the context of road safety, reduction in road trauma and its associated costs.

The ACT road safety authorities, in consultation with the ACT Division of General Practice, develop specific resources to assist GP's in identifying "at risk" older drivers. These resources should include information about locally available driver refresher programs, alternatives to driving and resources to assist individuals where cancellation of a licence risks increased social isolation.

The ACT trial "transport advisors" who contact or visit older drivers who surrender their licence, request advice or are referred for help to make the transition from driving.

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<sup>2</sup> (See section 5.7, pages 205-208)



The *Older Driver's Handbook* and the *Retiring from Driving* booklet are revised, streamlined and collapsed into a single booklet. That the revised booklet use professional copywriters and graphic designers to ensure a contemporary design is achieved and that the revised booklet be distributed at age 65 and again at age 70.

A comprehensive series of short fact sheets be developed and distributed with licence and registration renewals.

That fact sheets be forwarded directly to older road users on multiple occasions in order to optimise the match between the need for information and the timing of its delivery.

Opportunities to broaden distribution of these fact sheets via Shopfronts, the Seniors Information Line, the Motor Vehicle Registry, by post accident follow-up and post-licence surrender be explored.

That a range of modern contemporary marketing strategies including TV commercials, print advertising and the previously mentioned "Fact Sheets" be developed and utilised.

Existing on-line information services, such as *LiveDrive*, be maintained and updated and that these resources be more widely publicised to encourage broader use.

All educative materials be reviewed and updated on a regular basis. (Not less than bi-annually.)

Options be developed to assist older drivers to update their driving skills and to improve confidence. This should include:

- ◆ Driver refresher programs such as Overdrive;
- ◆ On-road refresher programs via driving schools who are aware of the issues of older drivers;
- ◆ On-line older driver rules and skills refresher programs such as are currently provided for younger drivers.

Driving refresher programs should be funded and offered on an on-going basis and that options be offered at low-cost so as to capture those older drivers on limited incomes.

Further research is undertaken in conjunction with key migrant associations to determine their road safety needs and identify appropriate responses.

Information about interstate and long distance driving be prepared and that recent retirees and drivers aged 60-75 be targeted for provision of this information.

The NRMA-ACT Road Safety Trust initiate a project to identify and quantify the benefits of various types of road safety initiatives.

## **2 OVERVIEW OF THE PROJECT**

### **2.1 OVERALL PROJECT DESCRIPTION**

This project is designed to undertake a “meta” and “needs” analysis of the older community in the ACT regarding driving and transport issues as they affect road safety in the ACT. The project included.

1. An analysis of various road safety projects relating to older people undertaken within the ACT in the last 5-years, a literature review on older people and road safety in the ACT.
2. Wide consultation with the ACT community and road safety experts regarding the road safety needs of older people in the ACT. This included a survey of approximately 5% of the population aged 65 and over, focus groups and individual consultations as appropriate.
3. The development of a series of recommendations for carrying road safety forward for older people in the next 5 years.

## 2.2 REFERENCE GROUP

A reference group consisting of the following members guided the project.

Name.	Title	Organisation
Robin Anderson	Previous ACT Road Safety Manager	Private Consultant
Sally Bachelard		Public Representative
John Brown	NRMA Road Safety Specialist	NRMA
Jean Butler	Manager, Road Safety	Department of Urban Services, ACT
Jim Langford		Department of Infrastructure, Energy and Resources, Tasmania
Pamela Leicester	Road Safety Manager	NRMA Insurance (Insurance Australia Group)

Members of the Reference Group were asked to contribute to the project through regular meetings, reviewing reports and making their specific expertise available to the project team. In particular, their tasks for each component of the project were:

### Meta Analysis

- ◆ Contribute to the scoping of relevant local programs, materials and research.
- ◆ Review, comment on and validation of the outcomes of the “meta” analysis.

### Consultation Phase

- ◆ Review and guide the proposed survey methodologies including assessing the suitability of survey instruments for purpose.
- ◆ Review and validate the outcomes of the data analysis.
- ◆ Advise the project team on suitable road safety experts for consultation and comment on data analysis.
- ◆ Guide planning of broad content and directions for focus group consultations.
- ◆ Review, comment on and corroborate focus group outcomes.

### Needs Analysis and Development of the Final Paper

- ◆ Provide advice on the draft of the need's analysis report.
- ◆ Consult and assist in formulating specific recommendations.
- ◆ Approve the final report for submission to the Trust.

## **2.3 THE META-ANALYSIS**

Over the past 5 years, a number of projects have been undertaken relating to road safety and older drivers. While the NRMA-ACT Road Safety Trust has funded many of these, some have been undertaken by individual organisations such as COTA (ACT) at their own expense.

There is little doubt that these projects have collectively and individually met a wide range of the needs of the older community and contributed to the ACT's excellent road safety record. At the same time there is no way of ensuring that these individual projects truly meet the overall needs of the older community.

Furthermore, whilst the ACT does have a Road Safety Strategy, in which older road users are named as a vulnerable road user group, a specific and detailed program that directly addresses the road safety needs of older road users has not been developed.

COTA (ACT) considered it timely to undertake a project which would perform a meta-analysis of what has been done within the last 5-years, consulting widely with the older community and road safety experts, identifying the driving (and other transport usage) patterns of older people, determining the road safety impacts of road usage and transport needs of older people, and produce clear indications of the on-going road safety development needs of older people in the ACT.

The outcome of this "meta" and "needs" analysis helped to determine the effectiveness of previously undertaken measures on older people and provide future directions for addressing road safety issues for the ACT's ageing population.

## 2.4 THE CONSULTATIVE PROCESS

In consulting with the older community in the ACT, COTA was concerned to ensure that coverage was wide. There are many small sub-groups within this community that can be easily missed if the consultation is not broad enough. A clear example of such a group is motorised scooter users which are relatively small in number. On the other hand, individual consultations with all stakeholder groups would be beyond the scope of the project and would take an in-ordinate amount of resources and time.

A significant survey of a large proportion of the population was determined as the best way to reach these groups. It was decided that a randomised selection of 5% of the population should give excellent statistical samples of even relatively small sub-groups.

The questions for the survey were developed by:

- ◆ reference to earlier surveys;
- ◆ information from the "meta" analysis;
- ◆ advice from the reference group.

It was determined that the results of the survey and the conclusions being drawn would be tested by presenting the key findings to a small number of focus groups of around 12 people in each.

## **2.5 THE NEEDS ANALYSIS**

The results of the “meta” analysis, the survey and the focus groups were analysed to determine gaps in the current road safety strategy being applied to older people in the ACT, consider possible alternatives and to develop approaches which would allow better delivery of road safety messages and facilitate a comprehensive strategic plan for road safety for older road users.

A classic process was employed whereby a list of “gaps” was first identified. These “gaps” were then compared to current best practice and other information identified in the “meta” analysis to develop specific “needs”. Finally, the gaps, needs and information about best practice were integrated so as to present specific strategies for delivery and for further development.

## 2.6 BENEFITS

It is hoped that this project will benefit the ACT community by:

- ◆ Allowing for better targeting of road safety expenditure for older people in the ACT.
- ◆ Increasing the community's awareness of the needs of older people in terms of road safety issues.
- ◆ Reduce road trauma for older people in the ACT (drivers, pedestrians and others).
- ◆ Reduce the impact of the ageing ACT community on road safety.
- ◆ Encouraging the ACT to develop an older person's Road Safety Strategic Plan.



## 2.7 PROJECT DEFINITIONS

For the purpose of this project the following definitions will apply:

**Road User(s)** – People utilising the ACT road network as drivers, passengers, bicyclists, motorcyclists (and pillion), pedestrians, electric scooter and wheelchair users and public transport patrons.

**Active Road User(s)** – People in control of a vehicle and pedestrians, i.e. those making choices, decisions and using skills and judgments during their road use.

**Passive Road User(s)** – Passengers in vehicles, as pillion passengers on motorcycles and bicycles, and those travelling on public transport.

**Pedestrian(s)** – Include people walking, boarding or alighting from a vehicle or utilising electric scooters and wheelchairs.

**Older Road User(s)** – People aged 65 years and over utilising the ACT road network.

**Accident/Crash** – A road accident, major or minor.

**Major** – A road accident which is attended by police. In the ACT police attend all crashes which result in fatalities, injuries or major vehicle damage (tow away).

**Minor** – A road accident reported to police by drivers' attending a local police station to complete an accident report.

**Casualty** – A person injured or killed as a result of a road accident, including persons receiving medical treatment or admitted to hospital.

**Fatality** – Any person who is killed outright or dies within 30 days as a result of a road accident, due to the injuries sustained.

**Road Environment** – includes roads, paths, verges, signage, controls and crossing facilities.

## **Glossary of Acronyms & Abbreviations**

**ATSB**                      Australian Transport Safety Bureau.

**BAC**                      Blood Alcohol Content.

**COTA – ACT**              Council on the Ageing (ACT).

**DUS**                      Department of Urban Services, ACT.

**NRMA-ACT**

**Road Safety Trust**      National Road Motorists Association & ACT Government  
Road Safety Trust.

## **Notes**

1.      The “current” crash data used in this report is for the year 2002. At the time of preparation of the early components of the project, this was the most recent year in which statistical summaries for both Australia and the ACT were readily available.
  
2.      Whilst “older road users” are defined, for the purposes of this study, as those 65 years and older, functional impairment rather than age is an issue in reduced driving ability. However, whilst bearing in mind this wide variability in impairment, age is our best guide for studying changes to the vulnerability of this group of road users.

## 3 THE META ANALYSIS

### 3.1 BACKGROUND

#### 3.1.1 ROAD SAFETY STAKEHOLDERS

The stakeholders in road safety issues both nationally and locally are a large and diverse group. Research, safety campaigns, skills programs and refresher programs are legion. Research can be pursued from many angles including the age cohorts of road users, fitness to drive, impact of medical conditions, speeding and drink driving, and category of road user (whether pedestrians, drivers, cyclists etc).

Key Stakeholders of road safety issues, including those specifically for older road users are:

- ◆ road users
- ◆ advocacy groups (e.g. COTA, Pedal Power)
- ◆ road safety councils
- ◆ insurance companies
- ◆ motoring organisations
- ◆ vehicle manufacturers
- ◆ police and emergency services
- ◆ government transport authorities (licensing, road rules, road design, engineering and maintenance)
- ◆ public transport providers
- ◆ health service providers
- ◆ aged care service providers

Given the number and diversity of stakeholders it is perhaps understandable that a comprehensive and cohesive picture of activities and directions in this arena has been difficult to develop. Whilst stakeholders have informal channels of communication via journals, conferences and linkages through research and programs, there is no co-ordinated view of, or approach to, the initiatives, activities and research nor formal pathways of information sharing and communication.

Each sub-group of stakeholders contributes to the study and promotes road safety in some format. Examples include insurance companies and motoring organisations

providing road safety advice via newsletters and websites and offering road rule quizzes and tests for people to assess their road skills and knowledge. The Australian New Car Assessment Program (ANCAP) publishes vehicle safety ratings and advice for older drivers via their website. General practitioners contribute by assessing people's fitness to drive and, in some cases, recommend revocation of licences to licensing bodies. Rehabilitation services assess and skill or re-skill disabled and older drivers and pedestrians, recommending and providing instruction on the use of mobility aids including hand controls for vehicles, electric wheelchairs and scooters. Local community organisations provide alternative (often volunteer) transport services for older people and the disabled. Groups such as seniors' organisations, local governments and, in some cases, motoring organisations, offer driver refresher programs.

### 3.1.2 POPULATION STATISTICS

#### National Population Statistics

Australia is an ageing nation. Evident in Figure 1 below is the significant shift in numbers of older citizens anticipated over the next three decades. Increased life expectancy and the ageing of the baby boomer generation are the key factors creating this shift.

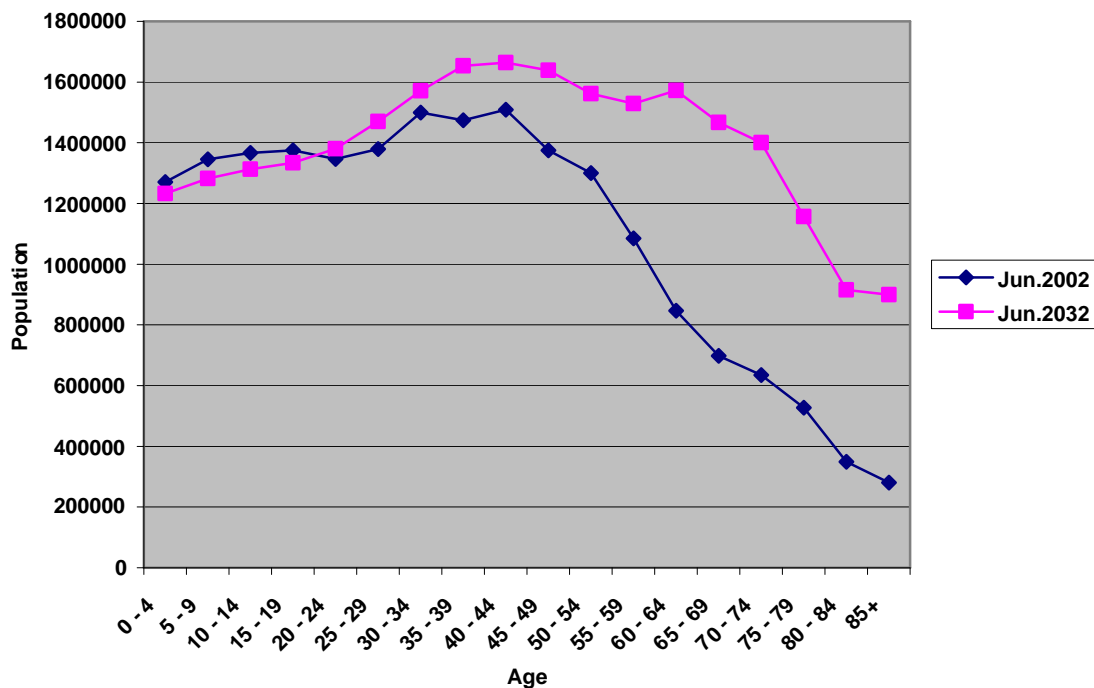


Figure 1: – Population in Australia 2002 & 2032 (projected), by age cohorts

This change in the demographics will compel governments, businesses and organisations to adjust their planning and strategies in terms of providing products and services including employment, housing, health, transport, recreation and leisure opportunities.

## ACT Population Statistics

During the second half of the 20<sup>th</sup> century the ACT was recognised as having the youngest population distribution and fastest population growth of all Australian states and territories. The ACT's population growth is now slowing and with a growth rate of approximately 0.8% is well below the national average of 1.2 to 1.3%.<sup>3</sup> We are now recognised as having the fastest ageing population. In the 30 years to 2032, Canberra's population is projected to grow by 67,000 people. Of this growth 57,000 will be among those aged 65 or more.<sup>4</sup>

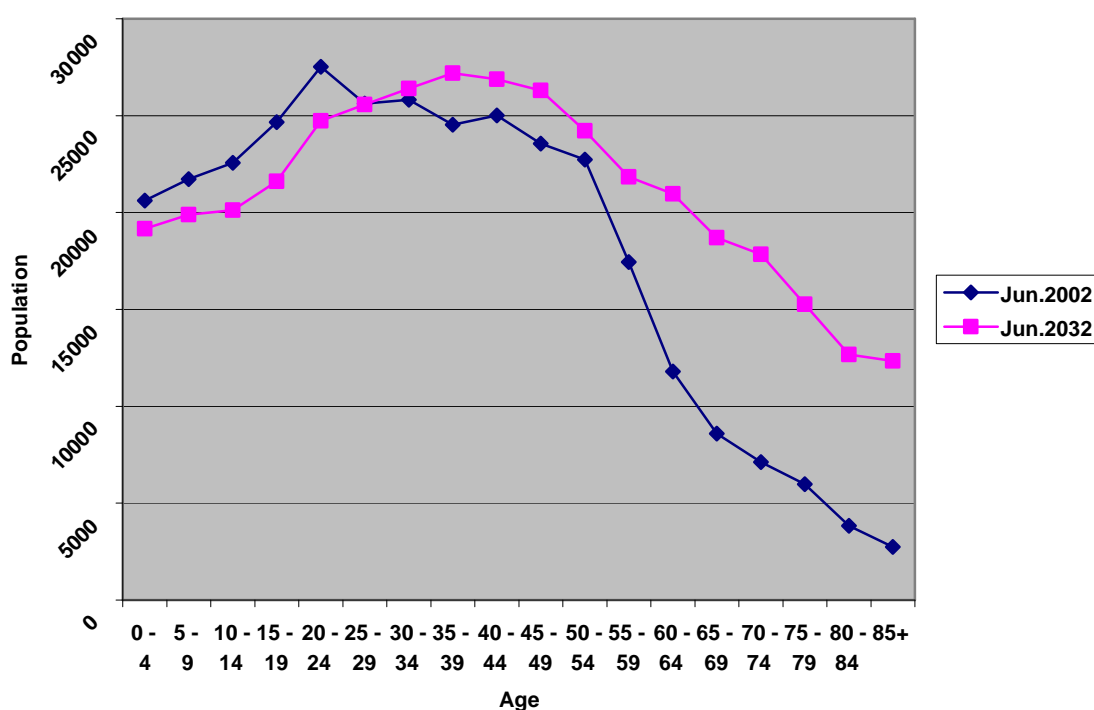


Figure 2: – Population in ACT 2002 & 2032 (projected), by age cohorts

Figure 2, illustrates the population change for ACT, 2002 and 2032.

<sup>3</sup> Australian Capital Territory Population Projections 2002-2032 and Beyond, Chief Minister's Department June 2003

<sup>4</sup> Australian Capital Territory Population Projections 2002-2032 and Beyond, Chief Minister's Department June 2003

### 3.1.3 ROAD SAFETY STATISTICS

#### National Road Crash, Injury & Fatality Statistics

Road accidents are the leading cause of death by injury<sup>5</sup> as globally there are over 3,000 lives lost every day and tens of thousands are injured.<sup>6</sup>

In Australia road fatalities totalled 1715 in 2002.<sup>7</sup>

When evaluating Australia's record through comparisons with international (OECD) statistics on road fatalities, Australia rates reasonably well. In 2001 Australia ranked 11<sup>th</sup> out of 25 with a rate of 8.9 road fatalities per 100,000 population (OECD median 11.1). We had the 9<sup>th</sup> lowest rate of fatalities per 10,000 registered vehicles at 1.4 (OECD median 1.9) and 4<sup>th</sup> lowest rate in terms of per 100 million vehicle kilometres travelled at 0.9 (OECD median 1.1).<sup>8</sup>

Whilst we are well placed in the OECD rankings with 8.9 road fatalities per 100,000 population<sup>9</sup>, we are behind the best performing nations (UK, Norway and Sweden). However, it must be borne in mind that these "top performers" are geographically small nations which are densely populated. By contrast Australia is geographically large and our population is disperse. Thus our national road system incorporates a high proportion of rural roads and we have different travel patterns, particularly in terms of long-distance travel. These factors arguably increase the risks to our road users (e.g. higher public dollars per capita are needed to provide and maintain the road network, long distance travel increases the risks of fatigue).

Taking these factors into account Australia's road safety record appears particularly well placed in international comparisons.

Our road fatalities have fallen significantly over the years, from 26.6 fatalities per 100,000 population in 1975 to 8.9 in 2001.<sup>10</sup> This achievement is particularly

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5 Road Safety in Australia – A Publication Commemorating World Health Day 2004, ATSB

6 Road Safety in Australia – A Publication Commemorating World Health Day 2004, ATSB

7 Road Fatalities Australia, 2002 Statistical Summary, Australian Transport Safety Bureau

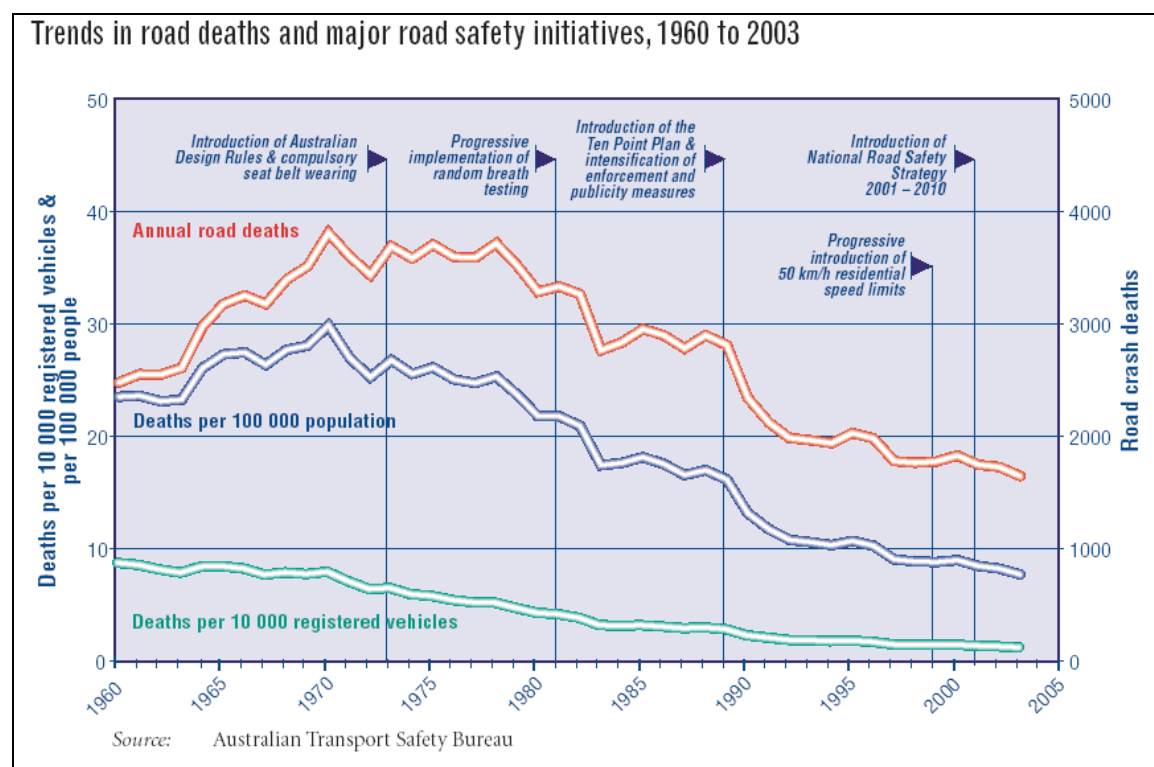
8 International Road Safety Comparisons: The 2001 Report, Australian Transport Safety Bureau

9 International Road Safety Comparisons: The 2001 Report, Australian Transport Safety Bureau

10 International Road Safety Comparisons: The 2001 Report, Australian Transport Safety Bureau

significant when we consider that the incidence of both licensed drivers and registered motor vehicles has grown significantly. In 1971 65% of the driving age population held a licence, in 1995 it was 89%.<sup>11</sup> This could be considered to introduce more marginal drivers and increase the intensity of vehicles.

The sharp downward shifts in our fatality rate aligns with the introduction of significant road safety initiatives such as compulsory wearing of seat belts and random breath testing as shown in Figure 3 below.



**Figure 3: – Trends in road deaths and major road safety initiatives, 1960 to 2003<sup>12</sup>**

However, the reduction in fatalities is slowing and the cost of road trauma continues to be significant, estimated at around \$15 billion in 1996.<sup>13</sup>

While this picture is generally positive, there is no room for complacency. We need to stay committed to and focused on sustaining our current initiatives and furthering

11 Safely on the Road in the 21st Century, ACT Road Safety Strategy 2001-2005, ACT Department of Urban Services

12 Road Safety in Australia: A publication commemorating World Health Day 2004, ATSB

13 National Road Safety Strategy 2001-2010, Australian Transport Council



road safety strategies. Furthermore analysis of expenditure on road safety initiatives shows it provides sound economic benefit, i.e. the costs of road safety initiatives are generally lower than the costs associated with dealing with the injuries, fatalities and ongoing disability.

The combined facts that we are an ageing nation and that older people are considered at higher risk of injuries and fatalities has the potential to put pressure on our road safety record. Unless road safety initiatives address the issues facing older road users a further reduction in the fatality rate is likely to be compromised.

### **The National Road Safety Strategy**

The National Road Safety Strategy 2001-2010 sets a target of 5.6 fatalities per 100,000 population by 2010. A recent progress report on the National Road Safety Strategy found that only 3 out of 8 jurisdictions are “on target” to achieve the 2010 goal – Western Australia, Tasmania and the ACT.<sup>14</sup> Thus nationally we are slightly behind the interim target, but the ACT is well placed.

In addition to this key target, the Strategy has also acknowledged the need to put the spotlight on improving equity in road safety recognising that youth, older people, people of non-English speaking backgrounds and indigenous people are all at greater risk on our roads.

The primary responsibility for roads and road safety lies with the State, Territory and local governments. This is despite the fact that the Federal Government develops the National Road Safety Strategy, and biennial Action Plans, and has responsibility for national highways and some aspects of road safety. Thus, each individual government undertakes development and implementation of their own road safety strategies, which, whilst consistent with the national strategy, reflect local priorities.

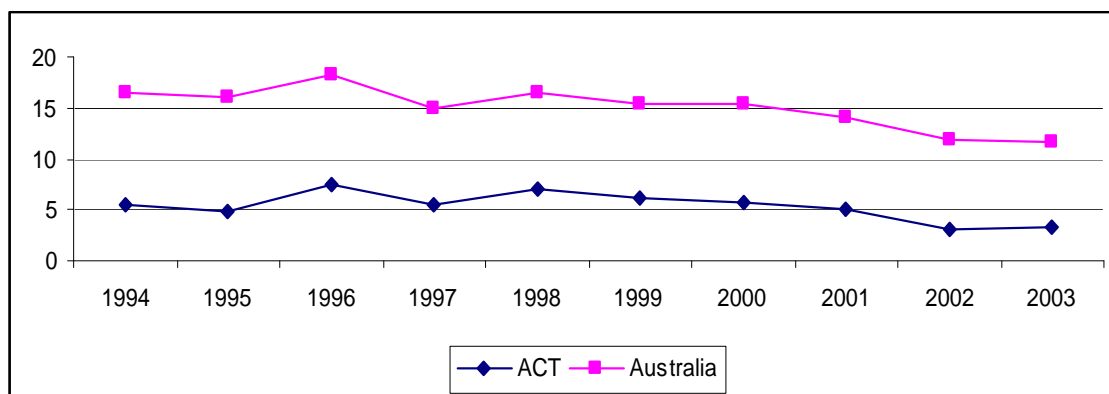
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14 Quoted in ACT Road Safety Action Plan 2003-2004

## **ACT Road Crash, Injury & Fatality Statistics**

Within Australia, the ACT enjoys the lowest fatality statistics with 3.4 per 100,000 of population. This is less than half the national rate of 8.9, see Figure 4 below.

Additionally, the ACT has the lowest rate of persons hospitalised and per vehicle kilometres travelled. It follows that the ACT also has the lowest relative cost of serious casualty crashes and per vehicle kilometres travelled.



**Figure 4: – ACT and National fatality statistics per 100,000 population, 1994-2003<sup>15</sup>**

The rate of road fatalities, both nationally and in the ACT, has declined over the past twenty years. In 1980 the ACT road toll was 30 and in 2002 it was only 10.<sup>16</sup>

Similarly the number of crashes and total casualty numbers have declined and the ACT has consistently had the lowest statistics in the nation. Disappointingly 2005 was a “horror” year for fatalities on ACT roads, bucking the trend with 26 deaths. Preliminary analysis of these accidents has not yielded any pattern or insight into the reasons for this sudden increase. For the period January 1 to June 30, 2006 the ACT fatalities statistics stood at four (4), much more in line with the pre 2005 levels. Interestingly one of the four was a 60-year-old male motorcyclist and one a 69-year-old female driver.

The ACT road system is generally modern, well designed and maintained. It has a well-defined road hierarchy; limited “ribbon development” retail centres and is, overwhelmingly, an urban system. These factors are recognised as making a significant contribution to our low injury and fatality rates. (50% of the nations road

<sup>15</sup> 2003 Road Traffic Crashes in the ACT, ACT Department of Urban Services

<sup>16</sup> Road Fatalities Australia 2002 Statistical Summary, Australian Transport Safety Bureau

fatalities are on rural roads but less than half Australia's population live in rural areas.)<sup>17</sup>

Being a small "island" jurisdiction within NSW, many ACT residents travel on NSW roads. It is estimated that approximately 25% of all road travel undertaken by ACT motorists is outside the ACT.<sup>18</sup> Furthermore, recent research has determined that the number of fatal crashes in NSW, involving ACT vehicles/controllers is approximately the same, or slightly higher than the number of fatal crashes within its borders. This same study also showed that the majority of these crashes occur in Metropolitan Sydney. The majority of fatal crashes for ACT vehicles/controllers on NSW roads involved male drivers. The majority of controllers were less than 40 years of age.<sup>19</sup> Very few ACT fatalities involve drivers from other jurisdictions. Taking these points into account it could be argued that the ACT has an "artificially" low official fatality rate.

Against this, in the ACT all road accidents must be reported to police, regardless of the extent of damage or injury. In some other jurisdictions reporting requirements are less stringent (damage value thresholds apply) and therefore our crash statistics (as opposed to fatality statistics) could seem disproportionately high when compared to data for other jurisdictions or in national comparisons.

Given these factors which "add", "reduce" and "inflate" our local figures it is difficult to determine an accurate picture of the ACT road toll, or formulate accurate comparisons with crash statistics nationally. Nevertheless we can be reasonably confident that, when all our unique characteristics as a jurisdiction are accounted for, our road statistics are in the low to average range for Australian jurisdictions.

The majority of accidents in 2002 (85.4%) involved two or more vehicles. The most frequent form of accident in the ACT in 2002 was the "rear end collision", accounting for around 46% of all crashes. This was followed by the "right angle collision",

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17 Road Safety in Australia - A Publication commemorating World Health Day 2004, ATSB

18 Safely on the Road in the 21st Century, ACT ROAD Safety Strategy 2001-2005, Department of Urban Services

19 Imberger, K, Styles, T & Cairney, P "Crashes involving ACT vehicles and ACT controllers in NSW 1999-2003", ARRB Consulting, 2004

representing 14% of all crashes. The "right angle collision" caused the most severe injuries and represented around 29% of all casualty crashes.<sup>20</sup>

The peak times when accidents occurred in the ACT in 2002 coincide with traffic volume peaks (8:00 to 9:00 and 17:00 to 18:00 hours). A vehicle driver is at the greatest risk of casualty among all ACT road users. In 2002 around 54% of the total casualties were drivers, with motorcyclists representing the second largest group of casualties (approximately 12%) and front left vehicle passengers the third largest group of casualties (approximately 9%).<sup>21</sup>

In 2002 around 45% of all casualties occurred to people younger than 30 years of age.

### **The ACT Road Safety Strategy**

As previously noted, each state and territory jurisdiction develops a local road safety strategy. The ACT's current road safety strategy "Safely on the Road in the 21<sup>st</sup> Century" covers the time frame 2001- 2005 and is consistent with the National Strategy and its neighbouring NSW Road Safety 2010 Plan. The ACT also develops regular Action Plans to translate the goals of the Road Safety Plan into specific actions (The current Action Plan is for 2005-06).

The goals of the current ACT Road Safety Plan are to

- ◆ Significantly reduce road trauma levels despite increasing population and travel.
- ◆ Create community responsibility for, and participation in, road safety.

The targets, set as moving averages, are to:

- ◆ Reduce hospitalisations to below 160 as a primary indicator.
- ◆ Reduce fatalities to 15 or less, as a subsidiary indicator.

The local strategy, like the National strategy, pays particular attention to "at risk" groups in the ACT community, especially older drivers.

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20 2002 Road Traffic Crashes in the ACT, Department of Urban Services

21 2002 Road Traffic Crashes in the ACT, Department of Urban Services

The specific projects targeting older drivers endeavour to:

- ◆ promote fitness and health to enhance driving practices;
- ◆ develop understanding of the possible impact of medication on driving ability;
- ◆ upgrade driving skills through further training;
- ◆ encourage consideration of mobility options as an alternative to driving.

The ACT has consistently achieved both quantitative targets. Over the past five years there has been a 50% reduction across injury and fatality statistics<sup>22</sup>. As indicated in 2002 the results were 150 hospitalisations and 10 fatalities. In 2003 there were 138 hospitalisations and 11 fatalities.

The second goal of the ACT Road Safety Plan – to create community responsibility for, and participation in, road safety has also progressed. Programs to improve the understanding of road safety issues and to reduce risk have been actively pursued through existing partnerships, in particular with the NRMA-ACT Road Safety Trust.

Since it was established in 1992 the Trust has contributed more than \$17 million towards funding road safety initiatives. Whilst the Trust provides funds to programs across the spectrum of road users, particular focus and support has been directed towards initiatives for two vulnerable road user groups, young drivers and older drivers. Many of the local programs and initiatives listed in this document are supported by the Trust.

Other initiatives consistent with the plan have also been introduced. These include:

- ◆ the "Road Ready" graduated licensing plan;
- ◆ extension of the red light and speed camera program across Canberra;
- ◆ extension of the mobile speed camera program;
- ◆ information strategies targeting older drivers and health professionals in relation to older driver safety;
- ◆ greater provisions for cyclists;
- ◆ increased surveillance and reporting on dangerous projections on bull bars;
- ◆ public education campaigns on road rules;

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22 ACT Road Safety Action Plan 2005-2006, ACT Department of Urban Services

- ◆ the “Black Spot” program;
- ◆ upgrades to roads to improve traffic flow and safety are other initiatives.

Ongoing liaison with community groups and road safety interest groups continues to promote community involvement and ownership in road safety issues in the ACT.

The outcomes achieved and the ongoing and new strategies being pursued are encouraging and deserve positive recognition. On the other side of the coin such achievements can foster complacency. Whilst the ACT's achievements are to be applauded it must be noted that the decline in local fatality and injury rates is slowing (notwithstanding the 2005 spike). Added to this mix, are the increasing number of vehicles on our roads, the increasing number of licensed drivers, and the trends vis-à-vis an ageing population. Collectively these facts suggest that to further reduce or even maintain our current outcomes we must continue the current programs and strategies and pursue new and effective road safety initiatives.

### 3.1.4 OLDER ROAD USERS CRASH, INJURY & FATALITY STATISTICS

#### General

Much of the research in Australia has been conducted in other states, particularly in Accident Research Centres attached to Universities. In the ACT much of the original research on older road users has concentrated on collecting transport usage and needs data or on the evaluation of existing initiatives and programs. Given the small road crash data sets in the ACT it is difficult to accurately determine trends in road injury and fatality data for sub groups eg. older road users, pedestrians, motorcyclists etc. It is reasonable then to utilise data and study results from larger jurisdictions to provide insights into expected road user behaviour here in the ACT, bearing in mind some key differences. Primarily the ACT is an urban road environment, with few regional and rural road systems. Secondly, Canberra is designed around a road system, with few "off road" transport options (ferries, trains, trams).

Looking at national fatality data (see Figure 5) we can see that road users over 70 years of age contribute only 14% to fatality statistics.

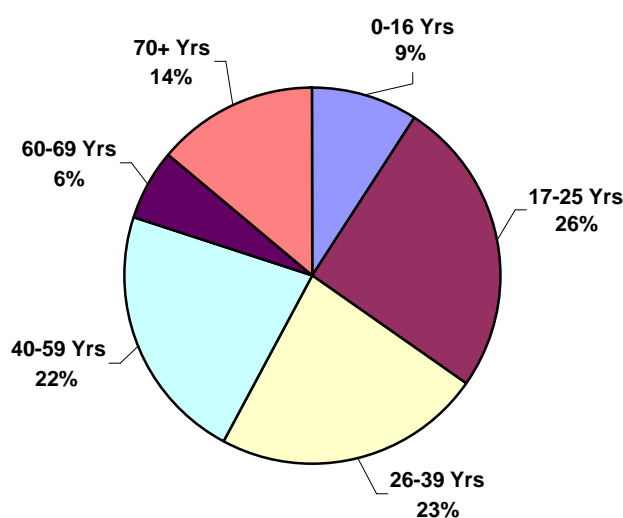


Figure 5: – Road Fatalities by Age, Australia 2003

Nevertheless older road users are over-represented in the statistics when we look at their injury and fatality rates as a proportion of the number of older people. Looking at

the statistics from this perspective their injury and fatality rates are higher than would be expected.

The over 75 years age group experiences the second highest number of deaths (per 100,000 population) after the 15-29 year old group. However, when looked at in gender groups, older women (75 years and over) experience the highest fatality rates across all female cohort groups (again national statistics) (see Figure 6).



**Figure 6: – Road Crash Death Rate per 100,000 by Age and Gender 2003<sup>23</sup>**

When the statistics are looked at from the point of fatalities per distance travelled (see Figure 7) we see a dramatic escalation in the fatalities for older drivers. These patterns are consistent across most western societies.

<sup>23</sup> Road Safety in Australia: A Publication Commemorating World Health Day 2004, ATSB



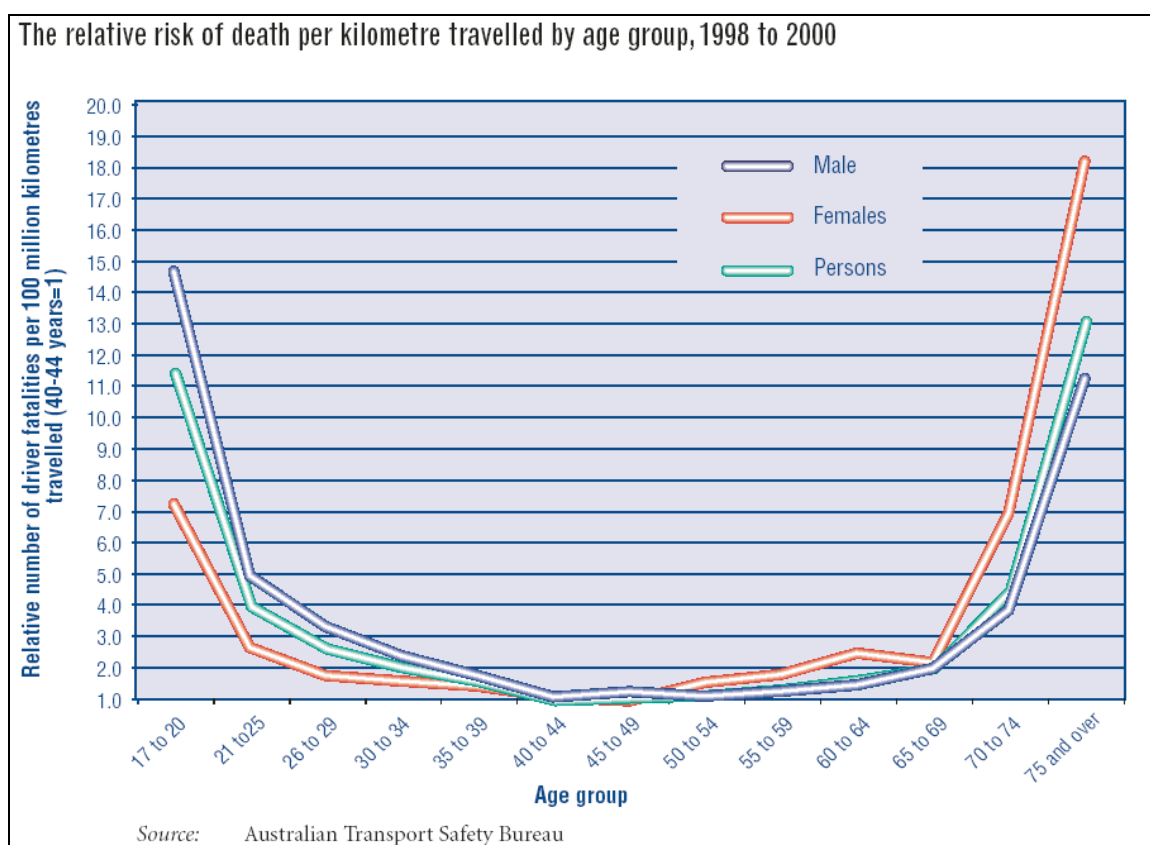


Figure 7: – Road Crash Death Rate per 100,000 by Age 1998 - 2000<sup>24</sup>

It is when the statistics are assessed using these last two methodologies (distance travelled is usually considered as the most robust measure) that road safety experts highlight the older drivers as an “at risk” group.

In the past it was assumed that the functional decline which accompanies ageing explained the higher than expected injury and fatality rates sustained by older road users. Recent research has identified two other factors which have a more significant bearing on the statistics. These are:

1. The increased fragility of older road users (their injury threshold is lower and their recovery from injury is more complicated).
2. The “short distance” bias applies to older drivers. The short distance bias suggests that the relationship between distances travelled and accident rates is not linear. Regardless of age, drivers who travel more kilometres

<sup>24</sup> Road Safety in Australia: A Publication Commemorating World Health Day 2004, ATSB

tend to have lower crash rates per kilometre when compared to drivers who travel fewer kilometres. Given older drivers generally drive less kilometres (often in multiple short hops) their relative risk increases when distance travelled is taken into account. This observation raises doubts over the concerns of increased accident risk to older drivers on the "per distance travelled" basis.

In summary, after accounting for the "short distance bias" older road users may not be significantly more "at risk" than other cohorts of road users who make similar distanced trips. Nevertheless, they are still over-represented, relative to their numbers in the population, in serious injury crashes and they are sustaining higher death rates than would be expected. These facts support the findings of recent research which suggests that it is their relative fragility which accounts for the high numbers of deaths and injuries among them, particularly in the over 75 age cohorts. This information then is pivotal when identifying workable and effective strategies to improve the safety of older road users. It is the crash outcomes which are more adverse for older drivers. This is a shift in thinking from perceiving the problem as heightened crash propensity (decline in driving skills) alone.

In the following paragraphs each road user group is examined separately to highlight the specific patterns in "on road" behaviour and causal factors in accidents.

### **Motor Vehicles**

Notwithstanding the previously mentioned caveats on the data, when looking at the national statistics from the point of injuries and fatalities relative to distance travelled and population proportions it remains that the older driver and passenger is at second greatest risk after the youngest driver cohort. This trend begins in the 60+ age group and increases significantly for the 70+ groups.

When older drivers are involved in motor vehicle accidents, the characteristics of the accidents are generally different from those experienced by other driver cohorts, particularly young and middle-aged drivers. Accidents involving older drivers are predominantly:

- ◆ in urban areas
- ◆ at traffic control sites
- ◆ whilst the driver has been performing a complex traffic manoeuvre
- ◆ occur on low speed roads
- ◆ by drivers usually under the BAC (blood alcohol concentration) limit
- ◆ at intersections and other complex traffic situations
- ◆ multi-vehicle crashes, particularly involving right angle crashes (especially where turning across adjacent or oncoming traffic)
- ◆ occurring as a result of a failure to give way
- ◆ in older vehicles<sup>25</sup>

When comparing the equivalent accident scenarios (multiple-vehicles crashes) across driver cohorts Langford et al, determined that the leading causes of these crashes among older drivers were "failure to see other road user" 28%, "pre-crash blackout" (15%) and "not see signal" (12%). For middle-aged drivers excessive speed, alcohol and being asleep or fatigued accounted for 44% of these crashes.

Where older drivers were judged responsible for single vehicle crashes the main causes were sleepiness, driver inattention or infirmity.

Some key insights can be drawn from this information. Firstly, older driver crash patterns reveal difficulties in negotiating intersections (requiring complex cognitive and physical manoeuvres). Secondly, right angle crashes are recognised as causing the most severe injuries and physically older drivers have a lower injury threshold. This combination of factors results in a greater risk of injury or fatality among older drivers. Finally, it can also be reasonably assumed that older vehicles are less likely to have optimal occupant protection such as head, side and curtain airbags. Again this leaves older drivers more vulnerable to injury and fatality in the event of a crash.

Research, both in Australia and overseas, cited in Langford et al, examining crash responsibility (attributable causal factors like driver error, road conditions, vehicle failure), indicates that older drivers are more likely to be judged responsible for their crashes than those in the middle aged driver age cohort (control group). Researchers posed the question "Is there an "age bias" in the judgments?" However, this question

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25 Assessing Responsibility for Older Drivers' Crashes, Draft Report, 2004, Langford et al.

seems difficult to resolve conclusively. The research did show that when involved in a crash, "older drivers are more likely to be the victims rather than representing an unacceptable risk to others".<sup>26</sup>

## **Pedestrians**

Pedestrian fatalities in Australia have more than halved in the 20 years from 1982 (629) to 2002 (249).<sup>27</sup> The most significant factor influencing this reduction in pedestrian fatalities has been a reduction in urban travel speeds, largely associated with the introduction of traffic calming measures and speed camera programs.<sup>28</sup> The recent implementation of 50 km/h suburban speed limits across Australia is also beginning to have a positive affect on pedestrian safety.

Still pedestrian deaths are a significant proportion of our fatality statistics; about 1 in every 7 road deaths are pedestrians. They are classified, along with bicyclists and motorcyclists as "vulnerable road users", given they are unprotected in an accident.

Although people 65 years and older represent 12.5% of our population, they sustain about one-third of the pedestrian fatalities (2001).<sup>29</sup>

Older pedestrians are in a sense the most vulnerable sub-group of all road users, they are the least physically resilient of pedestrians, and as acknowledged, pedestrians are the most vulnerable to casualties; more than any other type of road user. This is borne out in Figure 8.

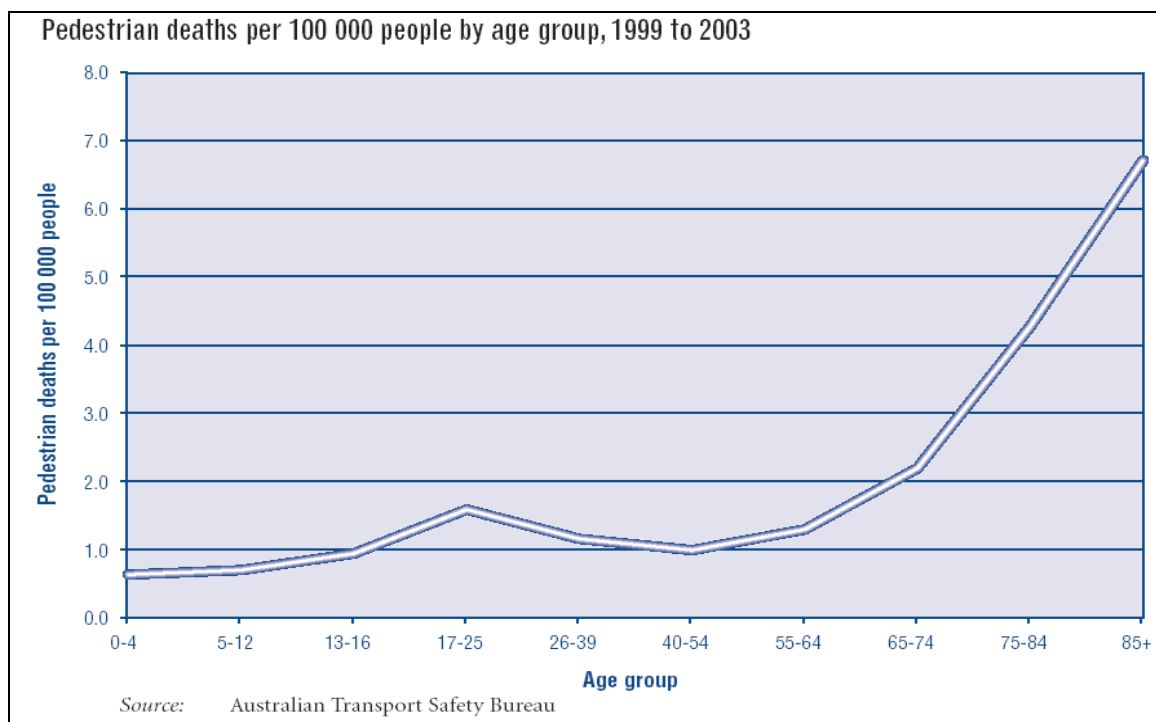
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26 Assessing Responsibility for Older Drivers' Crashes, Draft Report, 2004, Langford et. al.

27 Road Fatalities Australia 2002 Statistical Summary, Australia Transport Safety Bureau

28 ACT Road Safety Action Plan 2003-2004

29 Road Fatalities Among Older Pedestrians, Monograph 13, Australian Transport Safety Bureau, 2002



**Figure 8: – Pedestrian Fatalities per 100,000 by Age 1999 - 2003**

Studies of coronial records between 1996 and 1999 show that older pedestrians were generally killed from a collision with a vehicle in the following circumstances:

- ◆ While attempting to cross a road in an urban area.
- ◆ Often associated with complex traffic environments.
- ◆ Very few (11%) had a BAC above the driver limits (whereas in pedestrian fatalities for younger cohorts some 60% had excessive BAC's.).
- ◆ Only a very small proportion (5%) were attributable to driver error.
- ◆ The fatalities were predominantly attributable to unexplained, unintentional errors on the pedestrians' part i.e. not risky behaviour.
- ◆ Only a few of the fatalities (15%) were sustained whilst attempting to cross at traffic light controlled crossings.
- ◆ In 18% of cases a pedestrian crossing or traffic light controlled intersection was within 100 metres.
- ◆ Although the majority of travel by older pedestrians occurs during daylight hours, one-third of the deaths occurred at night, dawn or dusk, suggesting poor visibility was a factor.<sup>30</sup>

<sup>30</sup> Road Fatalities Among Older Pedestrians, Monograph 13, Australian Transport Safety Bureau, 2002

Several studies have also demonstrated that as older road users shift from driving to being pedestrians their risk of fatality shifts with them i.e. decreasing as a driver and increasing as a pedestrian. Strategies to encourage pedestrian activity and greater use of public transport must bear in mind this greater risk (walking often being necessary to accessing public transport).

### **Motorcyclists**

Motorcycling is recognised as the least safe form of road transport.<sup>31</sup> Motorcyclists are identified as one of the groups of vulnerable road users, (motorcyclists, pedestrians and bicyclists). However, motorcycles travel at higher speeds thus further increasing their vulnerability.

On the basis of distance travelled, the risk of death for a motorcycle rider per 100 million kilometres travelled is between 18 and 25 times higher than for motor vehicle occupants.

Motorcycle accident and fatality rates make up a significant proportion of our road fatality statistics. In 2002 nationally, 224 fatalities (13 per cent, 224 of 1715) were motorbike riders and their passengers. Motorcyclists are "in step" with the downward trend in road statistics, however, the rate of decline for this group has been more modest. In the decade 1991 to 2001 motorcyclists achieved a 6 per cent reduction in fatalities whereas there was an 18 per cent reduction in the overall road toll (from 2133 to 1736).<sup>32</sup>

More detailed analysis of the statistics shows that whilst fatality rates among young riders, 17 to 25, decreased by around 6% between 1991 and 2001, the rates for riders 40 years and over increased by 77%. Males sustain the vast majority of motorcycle related fatalities; in 2001, 3 female and 204 male motorcyclists were killed. The popularity of motorcycling (as shown in registration trends) is increasing overall, but within this trend younger people's use of motorcycles is decreasing and for the 40 years and over age group, it is increasing.<sup>33</sup> Given the physicality required

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31 Road Safety in Australia – A Publication Commemorating World Health Day 2004, ATSB

32 Motorcycle Safety, Monograph 12, Australian Transport Safety Bureau, October 2002

33 Motorcycle Safety, Monograph 12, Australian Transport Safety Bureau, October 2002

to ride motorbikes, the "mature motorcyclist" is generally defined as 40 years and over. Whilst this data would suggest motorcycle safety is an area of concern for a study into the road safety of older road users, those age 65 years and older currently have very low rates of motorcycle fatalities. Perhaps this will, in the future, become an emerging issue for older road users as those over forty who are currently reviving interest in motorcycling reach the "older driver" criteria.

A study, using insurance claim data, showed that in the ACT drivers of cars or other vehicles were responsible for 70% of the multiple vehicle crashes which involved motorcyclists.<sup>34</sup> A similar figure was cited for other Australian states.

Motorcyclists were a significant proportion 30% (8 out of 26) of the 2005 "horror" statistics for the ACT. In 2004, two motorcyclists fatalities were recorded and one in 2003. As with the accident statistics for 2005 generally, no distinct patterns were evident to explain this increase in motorcycle fatalities.

### **Bicyclists**

Cyclists, like motorcyclists and pedestrians, are recognised as vulnerable road users. Their exposure is high and their protection limited.

At the national level there is no data currently available which directly measures the extent of cycling activity, therefore trends in cycling and cycling safety are not well understood.

Cyclists represent a small proportion of the national road fatalities, accounting for between 1.6 and 2.6 per cent of road deaths each year. However, the number of cyclists seriously injured is relatively high. An average of 35 cyclists are killed each year on Australian roads and 2,500 are seriously injured, i.e. for every one cyclist killed on the road, 65 are seriously injured. By comparison the ratio for motor vehicle occupants and pedestrians is around one death for every 10 seriously injured. Put another way whilst there are seven times the number of pedestrians killed than

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34 The Canberra Times "Bikers not crash cause", July 2004

cyclists each year, the number of seriously injured cyclists and pedestrians is roughly the same.<sup>35</sup>

Over time bicycle fatalities have reduced, see Figure 9. In 1980 there were 93 bicycle fatalities nationally. In 2002 there were 34. A significant reduction (31 per cent) occurred between 1990 and 1993.<sup>36</sup> The states and territories introduced the compulsory wearing of helmets between 1990 and 1992. Clearly this initiative has been key to the reduction in bicycle related fatalities. This initiative, and the accompanying reduction of bicycle casualties, followed, but outstripped the general downward trend in the overall road toll.

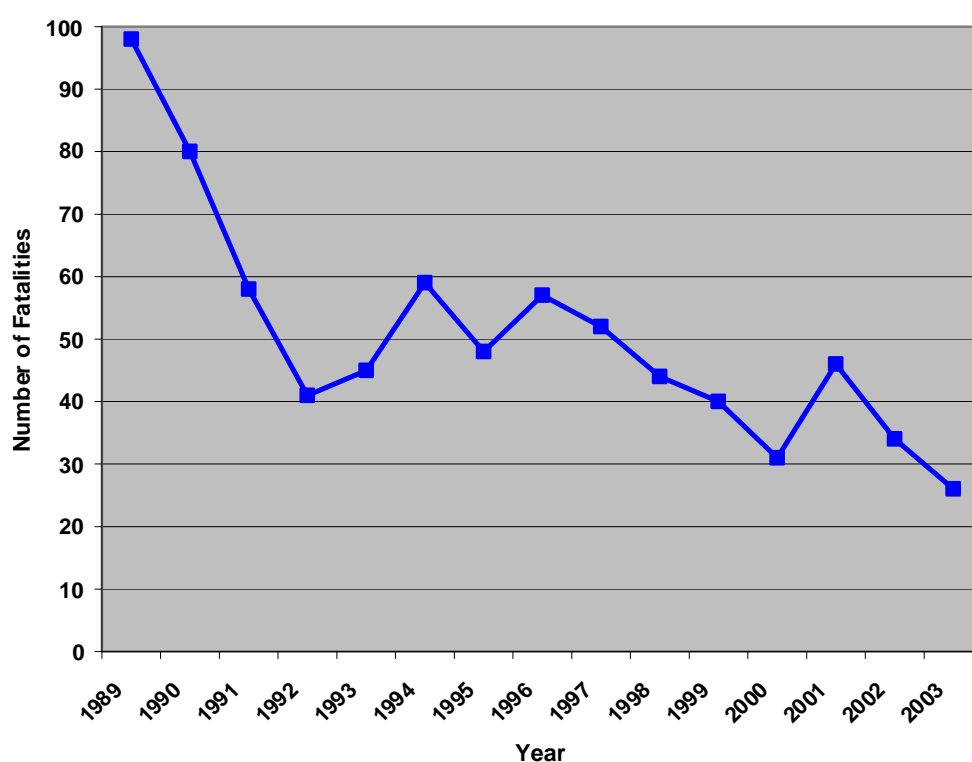


Figure 9: – Bicyclist Fatalities 1989 - 2003<sup>37</sup>

After achieving a peak in compliance rates shortly after the introduction of compulsory helmet wearing (peaking at 83% nationally in 1992) rates have plateaued.<sup>38</sup> In a recent analysis of all bicycle fatalities in NSW, one-third were not

<sup>35</sup> Road Safety in Australia – A Publication Commemorating World Health Day 2004, ATSB

<sup>36</sup> Helmet wearing and Cyclist Safety, Monograph 19, 1997, Federal Office of Road Safety

<sup>37</sup> Australian Transport Safety Bureau, Road Fatalities Australia, Database, online, [www.atsb.gov.au](http://www.atsb.gov.au), 2005

<sup>38</sup> Helmet wearing and Cyclist Safety, Monograph 19, 1997, Federal Office of Road Safety



wearing a helmet and, worryingly, the non-compliance among bicycle casualties in NSW has been increasing in recent years.<sup>39</sup> Data suggests lower compliance is a problem among children (16 years and younger) rather than for adult riders.

Nearly half (43.8 per cent) of seriously injured cyclists are children aged up to 16 years. This is in part due to the fact that children have high usage patterns for bicycles compared to other age groups. Only a small per cent of seriously injured cyclists (5.7 per cent) are aged 60 and over.<sup>40</sup>

The majority of reported bicycle crashes involve a collision between a bicycle and a vehicle. There is likely to be an under-reporting of bicycle accidents and injuries as other forms of bicycle accidents can and do result in serious injury, but may not be reported to police. Hospital data supports this notion that many bicycle accidents go unreported. However, we can assume that in analysing trends the official data is consistent across age ranges.

Safety is a concern for "would be" cyclists; a realistic concern given the number of serious injuries. Nevertheless a British study determined that whilst the risk of fatality for cyclists is high (approximately 140 deaths per annum), around 20,000 people per annum die prematurely from lack of exercise!<sup>41</sup>

### 3.1.5 IMPLICATIONS OF THE STATISTICS

If we are to improve or, at the very least, maintain the current level of road safety, we must understand and address the issues which arise for older road users, who are identified as an "at risk" road user group.

Using a USA model to project the "older driver crash problem", and modifying it to take account of Australian demographic, social and safety trends Langford et al, *"predicted that by 2025 driver fatalities for the age group 65 years and above will*

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39 Road Safety 2010: Motorcyclist and Bicyclist Safety Action Plan 2002-2004 RTA

40 Road Safety in Australia – A Publication Commemorating World Health Day 2004, ATSB

41 Road Safety in Australia – A Publication Commemorating World Health Day 2004, ATSB

*increase by 285% above 1995 levels*".<sup>42</sup> This translates to an increase from 121 driver fatalities in 1995 to 345 in 2025 for this age group.

Careful analysis and understanding of the risk factors for older road users, dialogue with, and co-ordination amongst key stakeholders will be critical to developing efficient and effective solutions.

It is important that at government, economic and community levels that we anticipate and plan for the implications of the demographic changes by the way transport infrastructure and services are funded and delivered. Access to information on road safety and to safe and accessible transport options is critical to the maintenance of independence, mobility and overall wellbeing of our senior citizens. These are important social and economic goals for our region.

As the statistics suggest, the key area to focus on for road safety among our older road users is the driver. Whilst older pedestrians do not contribute significantly to our local statistics in the same patterns as they do nationally, as our ageing population grows so too will the numbers of aged pedestrians and public transport users as they transition from driving. Therefore, it is reasonable to anticipate a growing need to address the safety of older pedestrians and public transport patrons. Similarly older motorcyclists are not currently a major road safety issue in the ACT but given the patterns of licensing and riding observed among older motorcyclists nationally and locally this may be an emerging need. This issue requires monitoring.

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<sup>42</sup> Langford J, Andrea D, Fildes B, Williams T & Hull M, Older Drivers Crashes: Responsibility and Who is Involved? 2004

### 3.1.6 ROAD SAFETY

The four major elements that contribute to road safety are:

- ◆ Safe road users.
- ◆ Safe road environments.
- ◆ Safe vehicles.
- ◆ Safe systems.

A report on road safety directions in Western Australia suggests that 95% of all road crashes have human factors as at least part of their cause.<sup>43</sup> Road environment factors are the second highest contributor (28%) with 8% of the causal factors attributable to vehicles.

Of course vehicle design factors can also contribute significantly to reducing injuries and fatalities. Vehicle design and safety features have developed significantly in the past three decades and these advances have been key contributors to the reduction in the road toll. Advances such as safety belts and their mandatory use, child restraints, ABS brakes, airbags, crumple zones and improved car design have all contributed to the reductions in deaths and injury. Similarly, reductions have been achieved for cyclists and motorcyclists with improved and mandatory use of head protection. Changes to car designs have reduced the severity of injury to pedestrians. However, the increasing number of bull-bars fitted to vehicles is a concern in terms of pedestrian safety.

New vehicle technology, in particular intelligent transport systems (ITS) are emerging. However, little is known about the ability of such systems to impact on road safety. The question arises “is there scope in the emerging technology to further support and protect older road users”? Alternatively, could any of the emerging technologies, particularly in-vehicle information systems work against the best interests of older road users?

Improvements to road design and engineering in Australia have helped the reduction in accidents and fatalities. Highways are increasingly designed as, or converted to, divided roads and in urban areas the number of controlled intersections have

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43 Road Safety Directions for Older Road Users in Western Australia, Road Safety Council

increased, both in terms of numbers of traffic lights and fully controlled right hand turns. Other traffic control and calming methods have been introduced particularly in urban areas. These include roundabouts, chicanes, and speed humps.

Changes to road rules, speed zones and policing methodologies have had an impact on reducing accidents, fatalities and injuries. Drink-driving laws and their enforcement, speed cameras, red light cameras, reduced urban speed limits and similar measures have all been shown to contribute to the reduction in the road toll.

Educating driver's about their behaviour is another valuable strategy which has contributed to the decline. Safety awareness campaigns and new enforcement measures mentioned above are contributing to a reduction in fatalities. So too is the increased efforts to prepare and train new drivers and riders for the tasks through such programs as Road Ready in the ACT. Refresher programs for older drivers also add to ensuring optimal driver behaviour, confidence, self-regulation and awareness of their driving abilities.

Any initiatives to improve the safety of older road users need to address the issue from these four key areas of safety; users, road environment, vehicle design and safety systems Vis:

1. What can be done to improve or optimise the behaviour and resilience of older road users?
2. How can road environments be developed or improved with the needs of older road users in mind?
3. How can vehicle design best support and protect older road users?
4. How can systems be developed or improved to enhance the safety of older road users?

### **3.1.7 ROAD SAFETY & OLDER ROAD USERS**

An increased risk of injury due to declining functional capacities and the increased fragility associated with ageing is a common feature of older road users, whether as drivers of vehicles, motorcyclists, cyclists, passengers, public transport patrons or pedestrians.

To be specific, declining functional capacities can include:

- ◆ Sensory deterioration;
  - vision – contrast, sensitivity, visual range, light/dark adaptivity;
  - hearing.
- ◆ Reduced cognitive functioning – the ability to attend to, and the speed at which, a person can process information, problem solve and make appropriate decisions.
- ◆ Loss of bone and muscle mass, reducing strength, flexibility and control.
- ◆ Reduced balance and motion perception and control.

Many of these functional declines can be addressed. Vision and hearing aids can correct some forms of loss. Physical exercise can slow muscle loss, improve balance and flexibility, as well as, slow the loss in bone density.

Nevertheless among the “oldest” older people there comes a time when these declines cannot be corrected or compensated for and their ability to drive safely is significantly diminished. At this point in time we need to inform, encourage and support older drivers so that the decision to retire from driving is achieved with minimal distress or loss of independence and quality of life.

An associated issue to functional decline is the use of medications to treat illness and age related physical deterioration; older drivers report the use of both prescription and over the counter medications. It appears that most older people are taking multiple medications (poly-pharmacy). While some concern has been expressed about the impact of medications on the older persons' driving ability, the treatments and medications may actually improve the safety performance of the user. It is generally found that when medications are used appropriately (correctly prescribed,

correctly taken and warnings observed) they do not impair driving ability. When medications are incorrectly prescribed or used they can present a danger.

Older drivers generally abstain from using illicit drugs. Further they abstain or self regulate alcohol consumption so as to avoid driving under the influence.

In addition to age-related functional decline, certain age related illnesses and diseases, particularly dementia, have been identified as adversely effecting driver competency.

Physical frailty leads to lower injury thresholds (more frail people will sustain injuries more easily) and they experience poorer clinical outcomes as a result of an injury (they experience greater difficulty in recovering). In the past, it was considered that the declining functional capacities of the older person were their major road safety risk factor. However, recent research findings suggest that physical frailty is the greatest risk factor in the vulnerability of older road users and that declining functional capacities are a lesser contributing factor. Older drivers are not necessarily experiencing difficulties with the tasks of driving, riding and walking, or causing more accidents but rather their physical frailty makes them more vulnerable to injury and fatality when involved in an accident.

Again, physical exercise has benefits in reducing the risk to older road users. Not only does exercise slow age related functional declines but by increasing and maintaining physical strength and flexibility, resilience to injury is increased in the event of an accident and, if injured, better recovery outcomes are likely.

Questions naturally arise about how we can offset this increased risk to our older road users and this picture also highlights that older road users have some unique needs in terms of road safety strategies.

In brief, the strategies to improve road safety for older road users needs to include:

- ◆ Information and education on the issues which affect their road safety and strategies to maximise their safety including:
  - promoting and making information accessible for both older road users, their families and other support systems;
  - emphasising the need to remain fit and active;
  - highlight the road safety importance of receiving appropriate treatments for illnesses, diseases, sensory deterioration etc;
  - encouraging up to date road use knowledge and skills;
  - developing compensatory and defensive driving, rider and pedestrian habits;
  - developing an understanding of the safety advances and benefits of newer vehicles.
- ◆ Road environment design standards which take into consideration the needs and capacities of older road users.
- ◆ Ongoing improvements and innovations in vehicle safety and occupant protections devices.
- ◆ Alternative transport systems which are available, promoted, accessible and appropriate to their needs.
- ◆ Appropriate licensing renewal systems which support the continuance of driving safety and, where necessary, identify people no longer able to drive safely and revoke licences.
- ◆ Good co-ordination among key stakeholders in the planning and delivery of road safety strategies.

These needs must also be balanced against the needs of other road users. Some road safety strategies have “universal” benefit i.e. they support the safety of all road users. Other strategies can be of particular benefit to subgroups like older road users eg. increasing crossing times at fully controlled pedestrian crossings. On the other hand, many of the key strategies for reducing the road toll focus on driving behaviours which are not typically issues for the older road users, i.e. speed and

drink driving (older people benefit indirectly as people who share the road with these "offenders"). Conversely, strategies which focus on improving the safety of older road users also benefit other road users. However, some of the strategies also result in slowing traffic, potentially leading to traffic congestion, driver frustration and impatience eg. fully controlled right-hand turns at intersections. Finding workable solutions specific to the needs of older road users is critical. However, any specific initiative must be considered and evaluated in the broader context of what is optimal for all road users.

### **3.1.8 OLDER ROAD USERS IN THE ACT**

#### **General**

Access to suitable transport is a key factor in maintaining mobility, independence and quality of life for older people. Shopping, accessing services, working, pursuing recreational activities and social connection all rely on the ability of people to travel. Conversely, lack of access to suitable transport options can lead to social isolation and deterioration in health and wellbeing.

Older road users usually make fewer trips per day than younger people. Generally speaking, they also have greater flexibility around the timing of their journeys (less time fixed purposes for travel such as education and work). This flexibility can be advantageous if using motor transport – they can (and do) avoid peak hours wherever possible. However, if they are relying on public transport then peak times usually offer the best frequencies and routes, while seniors' discounts discourage travel at these times. Often too, older people's travel needs are more localised and diverse (as opposed to commuting to centres) and again the frequency of services and routes may not match their needs.

#### **Older Motorists**

Research indicates that the motor vehicle is the predominant mode of transport used by people of all ages. Private motor vehicle travel is favoured as it offers the most convenient timing and door-to-door access. In addition, it is perceived as safe in terms of personal security and it is comfortable and "weatherproof". People with some degree of mobility problems may have difficulty as pedestrians, accessing



public transport and using pedal power, but are still able to effectively utilise private transport as a driver or a passenger.

A 1994 study by Monash University showed that older Canberrans drove 30% more than their Sydney counterparts. This is not surprising given that Canberra's design favours the use of private vehicles as the main means of transportation and public transport alternatives are more limited and less frequent than more populous cities. The same study also showed that older Canberrans drive about 20% less than their younger counterparts.<sup>44</sup>

Without adequate alternatives to private motor transport, there is pressure on older Canberrans to continue to drive, perhaps beyond when it is a safe and viable travel option. Notwithstanding this concern, older people are usually aware of their declining physical and cognitive functions. They tend to self-monitor and self regulate, developing compensatory or restrictive driving habits. A number of recent studies confirm these driving behaviours. For example, many older drivers limit the distance they travel, confine themselves to known areas, pre-plan their routes, avoid peak traffic times and opt not to drive at dusk or at night.<sup>45</sup> Older drivers have the benefit of many years of practical driving experience and many studies have also shown that older drivers are particularly responsible in terms of not speeding and not drinking when they drive.

ACT residents aged 75 years and older are required to undertake and pass a medical and vision test on an annual basis in order to retain their licence. Local general practitioners most commonly conduct these medical assessments. Licensing procedures are a state responsibility and the rules in other Australian jurisdictions vary widely. There is no conclusive evidence on whether stringent re-licence rules impact on the road statistics.

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44 Survey of Older Road Users: Behavioural and Travel Issues, Monash University Accident Research Centre, 1994

45 Booklet Evaluation Project Report on Retiring from Driving, COTA National Seniors ACT, 2004

## **Older Pedestrians**

A recent local study showed that walking is the second most frequently used travel mode, after driving.<sup>46</sup> Only a small number of people indicated using motorised scooters. However, this mode of transport is recognised as becoming increasingly popular.

We can expect that the introduction of the 50 km/h suburban speed limit will enhance pedestrian safety as reductions in urban speed limits have a positive effect on pedestrian fatalities. This change may not be readily visible as pedestrian injuries and fatalities in the ACT are very low. In addition, the areas with the lower speed limits are not where most pedestrian accidents occur, such as near schools and shopping centres. However, the reduction should become evident in national statistics and thus able to be inferred for the ACT.

The national accident data on older pedestrians suggest that specific education strategies are needed to develop greater safety habits, such as use of controlled crossings, re-evaluating estimates of time needed to cross safely due to reduced mobility, making eye contact with drivers to ensure they are being seen and observed and wearing clothing which optimises visibility.

It is recognised, both locally and nationally, that older pedestrians encounter specific problems when walking. These include "walk" cycles at fully controlled crossings which are not long enough for them to complete road crossings, poor lighting and lack of pedestrian refuges. In terms of their personal confidence and safety in using pathways (as opposed to negotiating across roads), uneven or broken path surfaces, overhanging foliage, sharing pathways (with skateboards, scooters, cyclists etc), unmarked edges and high gutters create difficulties for them. It is clear that greater consideration of older road users in road environment design standards could facilitate greater safety for older pedestrians and perhaps encourage greater utilisation of walking as a mode of transport.

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46 Booklet Evaluation Project Report on Retiring from Driving, COTA National Seniors ACT, 2004

## **Older Motorcyclists**

Given the increased physical skills required to ride safely, when categorising motorcyclists an older rider is typically defined as “over 40”. There has been an increase in popularity of motorcycling in this older age group; often this is people returning to riding after a prolonged break. These riders are often returning on newer machines with different power, performance and handling than those of their early riding years. The traffic mix and road environment has also changed. Often, they did not receive comprehensive rider training when they were first licensed.<sup>47</sup>

In part, this increasing interest in motorcycling for older riders explains the increase in fatality statistics among older riders. It is also important to consider the correlation between ageing and lowered injury thresholds and poorer clinical outcomes as contributing to this trend.

## **Older Bicyclists**

Few respondents to the *Retiring from Driving* study nominated using bicycles as a mode of transport (4%). Although the number of riders in this study was small, men nominated cycling more often than women (raw data ratio 3:1)<sup>48</sup>. Pedal Power ACT have looked into Canberran's resistance to cycling and the two main reasons nominated by people are “cycle trip time” and “fear of traffic and accidents”.

Given the high number of serious injuries sustained by cyclists, coupled with the increased fragility and low injury thresholds among older road users, the benefits of encouraging cycle use (to the wellbeing of individuals and the environment) would have to be carefully weighed. However, a study by the British Medical Association reflected that whilst 140 cyclists were killed in Britain each year, some 20,000 die prematurely due to a lack of exercise. Along with this our bicycling in Australia appears significantly safer than in the United Kingdom.<sup>49</sup> What a Catch 22 when it comes to older cyclists!<sup>50</sup>

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47 The Chronicle “Program to look after Older Riders”, October 2003

48 Booklet Evaluation Project Report on Retiring from Driving, COTA National Seniors ACT, 2004

49 Road Safety in Australia – A Publication Commemorating World Health Day 2004, ATSB

50 Road Safety in Australia – A Publication Commemorating World Health Day 2004, ATSB

## **Older Public Transport Patrons**

The recent study, which in part examined the transport patterns of older ACT citizens, showed buses were the third most popular mode of transport after driving and walking.<sup>51</sup> Use of taxis (both full fare and subsidised) and community transport services were also utilised but by only a small number of survey respondents. An interesting finding in this study was the fact that women utilised these public transport services much more frequently than men. Reasons for this difference in usage patterns could not be determined from the data. However, looking across all transport forms it appears that men prefer more independent means of transport such as using their own vehicle, a motorised scooter or bicycle. Women were more likely to utilise lifts with family and friends and a range of public and community transport options. Further confirmation and study of this apparent gender bias may identify the barriers to men using public transport and point to solutions to encourage and support greater use of these options.

Although outside the time parameters for this project, in June 1998 the Council on the Ageing (COTA) conducted a survey of its members on transport issues. In terms of public transport, respondents indicated "significant dissatisfaction" with ACTION services and routes, and access to the buses (step height).

With input from COTA and a range of other stakeholders, the ACT Government, in May 2000 developed and published an Action Plan for Accessible Public Transport in the ACT. This plan was updated in 2003 to create the *Updated Action Plan for Accessible Public Transport in the ACT 2004-07*. This update incorporated evaluation of the initial plan and again consulted widely with stakeholders. In working to overcome key barriers to public transport use, the focus has been on improving physical access to transport vehicles and infrastructure. Although the focus of this plan is to improve access to services for people with disabilities, such access and mobility issues also echo the difficulties faced, and raised, by older public transport users. The key objectives of the Updated Plan include:

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<sup>51</sup> Booklet Evaluation Project Report on *Retiring from Driving*, COTA National Seniors ACT, 2004

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**For Buses & Coaches:**

- ◆ ACTION will continue to roll out new easy access buses. The goal is for one quarter of its fleet to be compliant by 2007. The ACTION fleet currently has over 30 easy access buses in operation. These buses are equipped with an extendable ramp, a wide front entrance and space in the bus to accommodate wheelchairs and prams.
- ◆ From November 2003 regional bus services are planning and providing services which are wheelchair accessible and include improved mobility and safety features.
- ◆ The relocation of bus interchanges in Woden and Belconnen (in progress) and all future interchanges will include measures to meet Disability Transport Standards.
- ◆ Funding for a study into the introduction of "real time" information to interchanges and major bus stops, including assessing the provision of information in various formats.

**For Taxis**

- ◆ The re-designed Taxi Subsidy Scheme will be evaluated.
- ◆ Funding in the current budget year allowed for increases to subsidies, full coverage of the "lift fee" for wheelchairs and an information program to inform other people who may be eligible for the scheme. (Note: 80% of scheme members are over the age of 60.)
- ◆ Improving WAT (wheelchair accessible taxis) service standards.

Given the strong reliance on private motor vehicles for travel around Canberra, older people may not be experienced public transport users and thus lack familiarity with fares, routes, timetables and travel protocols (eg. ticketing machines, flagging a bus or taxi, selecting stops) which may deter their use of these forms of transport.

Buses are recognised as the safest form of travel.<sup>52</sup> Combine this knowledge with the increased vulnerability of older road users and there is compelling argument for focusing research on the motivators and disincentives for our older citizens to more frequently utilise buses, for both local and distance travel.

Whilst ACTION undertakes regular surveys of customer satisfaction, and in this assesses both the barriers and motivators to using buses, it does not specifically examine the issues relating to older bus patrons. Nevertheless, it is worthwhile noting that the three most commonly cited incentives for using buses more regularly are more direct bus routes (31%), more regular services (30%) and loss of current transport (18%). The two key barriers were the perceived inconvenience and having access to a car.

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52 Road Safety in Australian – A Publication Commemorating World Health Day 2004, ATSB

## 3.2 ACT ROAD SAFETY PROJECTS & PROGRAMS FOR OLDER ROAD USERS

Many stakeholders in road safety have been instrumental in initiating, funding and supporting programs in response to the results of research and the body of knowledge available on the needs and habits of older road users. The programs aim to enhance people's awareness of the issues and provide education, information and encouragement on preventative, protective and remedial strategies to improve the safety of older road users. Within the past few years, in the ACT, the following projects and programs have been pursued:

### ACT Older Drivers' Handbook

This booklet was initially developed and published in 1995 by COTA (ACT) and funded by the NRMA-ACT Road Safety Trust. The Department of Territory and Municipal Services, who now manages the publication, updated it in July 2003. This booklet is distributed with ACT Licence Renewals at age 70. The booklet is also available at ACT Shopfronts, Public Libraries and COTA (ACT). Additionally it is distributed through road safety courses and seminars for older road users.

This publication offers older drivers an opportunity to evaluate their driving performance, review their driving habits and update their road rule knowledge. The booklet also encourages people to consider their health and wellbeing and the implications for their driving ability. It outlines some "warning signs" of reduced driving ability, and provides some basic information on alternative transport services. Finally, the booklet provides some brief information on vehicle maintenance, what to do if involved in a road accident and a review of basic first aid measures.

This booklet has not been formally evaluated. However, informal feedback is positive and encouraging. People have found the booklet to be useful and have been accepting of its inclusion with licence renewals.

## **Retiring from Driving**

Published in 2000, also by COTA (ACT) with NRMA-ACT Road Safety Trust funding, this booklet is aimed at people who may need to consider retiring from, or need to prepare for retiring from driving. This booklet is forwarded with ACT Driver's Licence renewals at age 75. The booklet is also distributed via the same channels as the Older Drivers Handbook.

This booklet covers similar topics to the Older Drivers handbook but with more emphasis on the increased risks of driving for older people. Again it has a checklist by which people can assess their skills and capacities to drive safely. This booklet also focuses on the need to plan and prepare for the time when driving is no longer an option so that the transition is gradual, with less impact on activities and overall wellbeing.

The *Retiring from Driving* booklet was evaluated in early 2004. The evaluation examined three key questions:

1. Is the community sufficiently aware of this resource and is it easily available?
2. Is the booklet a quality publication – does it adequately and accurately cover the subject matter?
3. Is the booklet effective in encouraging and supporting people's decision to retire from driving?

In brief the findings of this evaluation were:

- ◆ The booklet is a useful, appropriate and valued community resource
- ◆ The booklet's content is informative, helpful and likely to positively influence older people's decision to retire from driving
- ◆ The booklet needs stronger promotion and its distribution could be improved

Essentially the evaluation confirmed the value of the booklet. Recommendations on improvements to the booklet's content, promotion and distribution were forwarded and agreed to by the Trust. However it was agreed that changes were such that it was feasible and desirable that existing stocks be used prior to producing a new



edition. Further, upon the instigation of this project, it was agreed that it was desirable to await its outcomes prior to any significant changes to the "*Retiring from Driving*" Booklet

### **OverDrive – Older Driver Refresher Program**

This four part program offered participants First Aid training, information on medications and their affects on driving, classroom training on driving skills and strategies for safer driving, a review of current road rules and a question and answer session. The final part of the program was a one-hour on road, individual driving assessment and coaching session with a qualified driving instructor. OverDrive is targeted at drivers in the range 60-70 years of age.

OverDrive has been offered as two series of programs, Round 1 in 2000 and Round 2 in 2002. Overall around 300 older drivers participated in the program.

Feedback from the first round enabled COTA (ACT) to refine the content and delivery of the second series. Round 2 of OverDrive was subject to a detailed program evaluation by participants. Overall the second series was very well received by participants who reported they were impressed with the amount of information imparted and the thoroughness of the program. A few participants questioned the relevance of the first aid and medications components. Overwhelmingly participants reported increased confidence in their driving ability through confirmation of existing skills and improved driving knowledge. Many expressions of interest have been received as word of mouth promotes OverDrive. However at this stage a third round is not secure.

Programs similar to OverDrive have been developed and conducted in other jurisdictions in Australia and overseas. Studies by insurance companies in the USA suggest that these driver refresher programs do have a small but positive impact on accident statistics<sup>53</sup>. A recent Australian study claimed, "*education programs by themselves have made at best, a very modest contribution to reducing road tolls around the world*".<sup>54</sup> The study did not detail the evidence for this conclusion. Further

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53 Older Driver Risks and Countermeasures, Elliot and Shanahan, ATSB, 1995

54 Assessing Responsibility for Older Drivers' Crashes, Langford, J, Andrea, D, Fildes, B, Williams, T & Hull, M., Austroads, 2004.

evaluation of the impact of driver refresher programs offered here in the ACT is perhaps warranted.

### **Scooter Safe Project**

Another COTA (ACT) program funded by the NRMA-ACT Road Safety Trust. Able Access was an active partner in elements of this program. The Scooter Safe project was prompted by the increasing use of these mobility aids and the unaddressed issues of user training, user status and its implications (scooter users are currently identified as pedestrians) and user and public safety. The project sought to address these issue through:

- ◆ a Policy Implications & Recommendations Document (this included public consultation);
- ◆ a comprehensive Scooter User Training Program, including User Booklets, Instructional Video and Training Guide;
- ◆ training to Scooter Users.

The training program was distributed as a package to scooter suppliers, local hospitals, medical and para-medical professionals, support services and local libraries. Existing and potential scooter users were also invited to participate in training sessions run by COTA and Able Access. These half-day training sessions were offered on three (3) occasions and were fully subscribed with 45 participants.

### **LiveDrive**

Another COTA (ACT) and NRMA-ACT Road Safety Trust funded project, the recently launched LiveDrive web site for older road users brings together much of the most up to date information on older road user safety. The purpose of this website is to provide people with interesting and useful information to increase their awareness of road safety issues; and provide safety tips. General older road user information and specific segments targeted at drivers, pedestrians, motorcyclists and cyclists are included. The site offers links to many other resources such as the *Older Drivers' Handbook*, *Retiring from Driving* booklet, Scooter Users Guide and video, the *ACT Road Rules Handbook*, ANCAP data and the like.

Since its launch in March, 2004 the site had about 2,000 visitors to June 2006.

### **Seminar Series**

Developed alongside *LiveDrive* is a series of brief, interactive seminars which are designed to highlight the issues of road safety to older people and to extend their knowledge and skills.

This program is currently in the delivery stage. With a target of 500 participants, 368 older citizens have attended the seminars conducted at Senior Citizens Clubs, recreational clubs and community services. It is expected that as a brief seminar it caters to different audiences than the longer programs or on-line and published information. Similar programs to the Seminar Series have been developed and conducted in other Australian jurisdictions such as "The Years Ahead" program in Victoria.

### **Coming of Age: Safety and the Older Driver**

Coming of Age is a video produced by COTA (ACT) in 1996 as a resource targeted at older drivers. It helps older drivers assess the safety of their driving skills to continue driving in the years ahead. Broadcaster and motoring driver Ralph Bain discusses safe driving with veteran drivers and a range of experts. He concludes with an eight-point plan to help older drivers assess their driving skills and continue safe driving. The video is available on loan from ACT Public Libraries. Some copies are available for purchase from COTA (ACT).

### **Teaching Older Drivers – A Handbook for Driving Instructors**

Developed for the then ACT Department of Urban Services and the Tasmanian Department of Infrastructure, Energy and Resources by La Trobe University and sponsored by the NRMA-ACT Road Safety Trust in 2001. This book supports and guides driving instructors when working with older drivers.

The Handbook highlights the impacts of ageing on driving, the characteristics of older drivers, their specific needs, and also addresses the legal and ethical issues associated with older drivers. The handbook includes an outline for retraining older drivers, gathering data on driving experience, knowledge, special needs and specific learning strategies.

This booklet was distributed to all driving instructors in the ACT, via the Driver Training Association. At the time of distribution it was well received by instructors.

### **SafeDrive Medical ACT 2003**

In 2003 the NRMA-ACT Road Safety Trust sponsored the Monash Ageing Research Centre to develop and present a series of three seminars to local doctors, specialists and allied health professionals. These seminars were a modification of a similar program which had been offered in Victoria. The purpose was to promote safe road use by older people through assisting health professionals to deal more effectively with issues relating to older and impaired drivers. The focus of these sessions was on issues such as prescribing medications, assessing people's fitness to drive and the health professionals' legal obligations.

Over 120 local health professionals, mostly general practitioners, attended. Prior to attending only 47% of doctors surveyed indicated they felt comfortable discussing driving issues with older patients. Subsequent to the seminar this figure rose to 84%. It is expected this series will be repeated in the near future.<sup>55</sup>

### **Drugs and Driving: A Workshop to discuss the key issues**

This was a short series of half-day workshops, presented by the Australasian College of Road Safety Inc. with support from the NRMA-ACT Road Safety Trust. It provided local health professionals with information on the impact of drug use (licit and illicit) on driving and current trends in consumption of illicit drugs. User knowledge and attitudes, as well as, strategies to manage and police this behaviour were included.

### **Stay Upright ACT MASTERS Course**

The "MASTERS" course is a defensive road skills course initiated by the Motorcycle Riders Association of the ACT and developed and conducted by Stay Upright Motorcycle Techniques. It is subsidised by the NRMA-ACT Road Safety Trust. This one evening and one day course is aimed at licensed riders who are returning to

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55 NRMA-ACT Road Safety Trust Annual Report 2003/04

motorcycling after a break. Theory, road craft skills and how to develop a safe on-road riding plan are included.

This course proved very popular in its first year of operation and continues to be well subscribed.

### **Investigation of Older Women's Road Safety in the ACT**

The Monash University Accident Research Centre, received funding from the NRMA-ACT Road Safety Trust to analyse older women's crash rates, survey their driving and travel patterns and develop an educational handbook. The fact that women over the age of 85 years are the fastest growing segment of the Australian population was one impetus for this research. A specific focus of this project was to examine the consequences of older women becoming the principal driver after years of being predominantly a passenger and how this might affect their safety.

This research confirms differences between older women and older men drivers which together heighten their risk of being involved in a crash and also sustaining an injury or a fatality. Firstly, whilst older women live longer than their male counterparts they have a greater prevalence of illness and disability. Women are more susceptible to injury and experience poorer recovery outcomes in the event of a trauma, because of the increased frailty factor. Research outcomes also show that older women compromise their driving skills and confidence by allowing their current driving experience to diminish in later years when a male driver (usually a husband) is available to assume the principal driving role. Women also tend to drive shorter distances than their male counterparts (again bringing the "short-distance bias" to bear on their statistics).

The key recommendations emerging from this study promote; the development of a handbook for older women drivers, improved road design and engineering to support the needs of older drivers and improved vehicle design, particularly as it relates to occupant protection measures.

## General Programs

In addition to the above programs and the studies and resources which have been developed to support the road safety needs of older road users, there are a multitude of products, programs and research which are targeted at, and designed to assist, all road users. A key example is the ACT Road Rules Handbook, available both in print via the Motor Registry and ACT shopfronts and on-line through the Department of Territory and Municipal Services website (and links in LiveDrive).

Many of the resources and programs targeted at other road user groups are of value to older road users. However their relevance and availability need to be highlighted. Examples of this would be:

- ◆ The Nova Project: Science in the News. This series of website articles examines the role of science and technology in achieving Australia's economic and social goals. Relevant articles on road safety include – Drug Impaired Driving, Driver Fatigue, Road Trauma, Road Rage and Four wheel Drive Vehicles. This ongoing series is developed by the Australian Academy of Science and many of the road safety topics have been sponsored by the NRMA-ACT Road Safety Trust. Whilst targeted at secondary school students or novice drivers they provide useful and thought provoking material for all road users.
- ◆ The Department of Territory and Municipal Services has produced a leaflet "Enjoying Safe Cycling in the ACT" available both in print and on-line. This leaflet summarises bicycle safety, road rules and tips on sharing the road, riding and bicycle security.
- ◆ The Road Ready ACT - online road rules assessment test.
- ◆ A seminar series "Quality use of Medications" is an initiative of the National Prescribing Service and COTA. These brief sessions (less than one hour) are offered free as a public presentation to existing groups within the community. The sessions are interactive and promote the concept of older people becoming "active partners" in their use of medications. The aim is to reduce the number of medicine mishaps, currently estimated to create

140,000 hospital admissions per year in Australia. The National Prescribing Services supports this with "Medimate – for medicines without the mix-ups" which provides a helpline, website and an awareness campaign (advertising and booklets) to support the safe use of medications. Whilst this information is targeted at the general population it has relevance to road safety and especially for older road users.

- ◆ The YMCA in the ACT has developed a range of physical fitness activities targeted to people over 50. The goals of the program "PrYme Movers" is to maintain the health, wellbeing, independence and safety of older people by encouraging physical activity and social connection. The aim is to maintain and strengthen muscles, balance, motion functions, flexibility and resilience. This is achieved through exercise classes, bushwalking, sailing, lectures and social events. One of the key motivations for developing these programs was to maintain older people's capacity for independent living and accident prevention (particularly falls) which account for a significant number of hospital admissions, especially in the 80+ age group. Whilst this program is not linked to road safety for seniors its potential is evident as it addresses physical frailty which usually accompanies ageing and this is the key factor which makes older road users particularly vulnerable. Furthermore, optimal flexibility, mobility, cognitive and sensory functioning is critical to being a safe road user, all of which can be improved by continuing to stay fit and active. Awareness of the linkages between physical fitness and road safety can be promoted both ways - through programs such as PrYme Movers and through road safety programs, literature and other resources.

The "Safe Routes Pilot Project" undertaken in the ACT in 2001 also warrants mention. As a, then, ACT Department of Urban Services, Planning and Land Management (PALM) project, the focus was to promote pedestrian and cycling activities through identifying safe routes within the Inner North Canberra residential areas which included routes to and from Civic. The recommendations regarding signage, lighting, path surfaces, landscaping and safe sharing of multi-use pathways, if adopted across the ACT would greatly improve the environment for older pedestrians and cyclists. It is noted that there is evidence of some of these recommendations being implemented in parts of the ACT with uneven pathways

being reworked and many pedestrian islands and refuges being built at crossing points.

Whilst being aware of these and other useful programs and projects, it is beyond this project to fully scope and investigate them. However, other information and programs are relevant and available but are as yet not linked to our programs.

This awareness of projects tangentially linked to road safety highlights the need and potential benefits of a central clearing house facility to provide an integrated approach to managing road safety in the broader context of the health and wellbeing of ACT citizens.



### 3.3 ROAD SAFETY PROJECTS & PROGRAMS IN OTHER AUSTRALIAN JURISDICTIONS

It is noted that different versions of many of the initiatives offered in the ACT have been produced and offered in other Australian States and Territories. Booklets like the *Older Drivers Handbook*, and programs such as the *Seminar Series*, *Scooter Safe* and *OverDrive* have been similarly developed and run in other states.

Furthermore, other states have produced educational programs and materials which hitherto the ACT has not offered, but may find appropriate to add to its repertoire, for example:

- ◆ In Western Australia St John Ambulance offer a free, interactive, online "Crash Course". This is a basic first aid course focusing on road trauma.
- ◆ In South Australia the "Walk with Care" program brings together older residents, community groups, local councils and Transport SA to work together in an interactive way to identify and reduce road dangers for pedestrians through engineering improvements and road safety awareness.

At the national level Austroads takes the lead in monitoring road safety in Australia. It conducts and supports much of Australia's primary research. It co-ordinates and fosters co-operation among all Australian Driver Licensing Authorities. Among its national initiatives is the production of medical standards for licensing and clinical management guidelines for health professionals. Updated standards and guidelines were published in September 2003 and a companion leaflet *"Driving and your Health – Your Questions Answered"*, aimed at health consumers, was circulated to medical practices throughout Australia.

In 2004 Austroads also began rolling out the project *"Road Environment and design for Older Drivers"*.<sup>56</sup> The project thus far has produced a reference handbook for road designers and traffic engineers in order to provide guiding principles in road design which help to create roads that are more forgiving of the difficulties experienced by older drivers. An accompanying series of training workshops have been offered as an

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<sup>56</sup> Road Environment and Design for Older Drivers, Austroads, 2004

adjunct to the reference handbook. The ultimate aim is for these suggested design principles to be formally incorporated into our national road design standards.

As previously noted, most of the primary research projects on road safety are conducted in other states, often in accident research centres linked to universities. This research has been extensively drawn on. However, it is acknowledged that not all studies have been located, analysed or reported in detail in this report.

### 3.4 SUMMARY OF THE META-ANALYSIS

We have scoped the extent of the issue related to older persons road safety, examined the unique needs of older road users, provided an overview of recent research and identified existing programs and strategies. The increasingly ageing population, increased numbers of licensed older road users, and increasing motor vehicle registrations will result in an ongoing increase in the density of older road users for the foreseeable future. The increasing complexity of our road systems will likewise become an increasingly important issue to be addressed.

The identification of older road users as an “at risk” category has been explored and is the subject of differing opinions. This is because any single risk measure is not definitive and can provide misleading results (e.g. distance travelled involves a “short distance” bias). In OECD terms, Australia’s road safety ranking is 4<sup>th</sup> (per kilometres travelled), 9<sup>th</sup> (per number of registered vehicles) or 11<sup>th</sup> (per 100,000 population). Perhaps the most useful data is the number of older road user casualties compared with other road user cohorts. This form of comparison does show that a disproportionate number of older road users are seriously injured or killed. This fact alone compels us to apply resources to redressing this risk.

What is also clear is that Australia, and the ACT will have increasing numbers of older road users in the years and decades ahead. They have unique needs and risks which must be addressed as part of the effort to minimise our road toll regardless of whether or not they are a disproportionate share of road injuries and deaths.

Analysis on national and local crash data show:

The highest contribution to road fatality statistics (both nationally and locally) is among vehicle drivers and passengers. This is the preferred form of transport among older people. Thus, older drivers must be a key and ongoing focus of local strategies and initiatives. This will involve reformulation of some existing older driver programs to better reflect current knowledge.

Older pedestrians are generally vulnerable and over represented in the pedestrian fatality statistics. In the ACT pedestrian fatalities are very low. Despite this, the

introduction of initiatives addressing the safety of older pedestrians may be warranted.

Motorcycle fatalities are disproportionately high in the national statistics. However, motorcycle fatalities in the ACT are very low and, in the past decade only two "older rider" fatalities were recorded. The MASTERS course is currently available to older riders in the ACT. This may be sufficient as a motorcycle safety strategy at present. However, given the increasing popularity of motorcycling among the over 40 year olds; a "watching brief" is indicated.

ACT older road users indicate only very low utilisation of bicycles as a mode of transport. Older bicyclists in the ACT have not registered any fatalities in the past decade. These facts suggest there is little needed in the way of road safety initiatives specifically for older bicyclists.

The ultimate strategies and recommendations, on the basis of this report on statistics, trends, research and existing programs, will depend on the outcomes of further investigations with older road users. However it is likely that as a community we will need to focus on:

- ◆ Educating older road users, their families, carers and supporters on their safety profile and provide linkages to information, programs and policies which enhance their road safety including:
  - optimising the physical and psychological wellbeing of older citizens;
  - maintaining up to date road use knowledge and skills;
  - encouraging the use of compensatory and defensive driving strategies;
  - highlight the importance of utilising vehicle safety ratings and information in vehicle purchasing decisions.
- ◆ Supporting retiring from driving with both formal and informal procedures.
- ◆ Planning, implementing and promoting viable alternative transport options.
- ◆ Regularly assessing the effectiveness of existing initiatives and, expanding, adding, altering and deleting as indicated.

Many of these tasks are already in train here in the ACT. However, evidence of three key gaps in our local activities emerged from this meta analysis. They are:

1. Some of the information from recent research is not adequately reflected in the existing programs and strategies. This is particularly true for the information on why older road users are "at risk". Current programs inform older road users that they are "at risk" but the links between why (physical frailty, low injury thresholds and recovery outcomes) and the preventative measures people can pursue are generally not presented. An example of this shortcoming is the usefulness of optimising physical wellbeing as a road safety strategy for older people. Similarly, the importance of safer vehicles is not adequately considered when making purchasing decisions.
2. A well co-ordinated and implemented local older person road safety plan is required. While the ACT Road Safety Strategy is acknowledged, a stronger approach which both encompasses these strategies and creates links between the stakeholders is required.
3. Finally, there are gaps in existing knowledge of the transport usage patterns and needs of ACT's older citizens. There is little understanding of people's perception of road safety issues and strategies. In addition, the approach to engaging people more fully in the issue of their road safety is inadequately developed in the ACT.

## 3.5 THE NEXT STEP

Further consultation with older road users and other key stakeholders needs to explore outcomes of this Meta analysis. These issues will be listed under the key road safety systems categories of Safe Road Users, Safe Vehicles and Safe Systems. These issues helped frame the basis of the consultation phase.

### Safe Road Users

#### *General*

The questions raised include the following issues. How healthy and active are our older citizens? Do older people understand the links between optimal well-being and road safety? Do they know that their physical and cognitive health affects their ability to travel safely as drivers, riders and pedestrians? Do they understand that their physical wellbeing influences their resilience to injury and influences their recovery if injured?

How are older people optimising their on road use skills? How do they keep informed about health and safety issues?

#### *Drivers*

How often and how far do older driver's travel? Do they drive long distances? What is the purpose of their travel? How widespread is self-regulation of driving behaviours and activity to make allowances for functional declines? How do drivers maintain their knowledge and skills? What concerns do they have about driving, now and for the future? What factors influence the decision to retire from driving and the timing of this decision?

#### *Pedestrians*

How much pedestrian activity is there among older people? What are the concerns or barriers to greater walking? Do older pedestrians know how to optimise their safety? Do we need to address the issues of older pedestrian safety with programs and information?

### *Bicyclists*

How popular is this form of transport among older people? Are there any specific issues or concerns among older cyclists which need attention?

### *Motorcyclists*

Are their significant and growing numbers of older motorcyclists in the ACT? Are older motorcyclists aware of their vulnerability? Are they aware of their poor safety record? Are they aware of how they can optimise their safety? Are they aware of the local programs available to enhance riding skills?

## **Safer Vehicles**

How old are the vehicles driven by our older motorists? Do they understand the safety advantages of late model vehicles? Do they understand the particular importance of vehicle safety features (particularly occupant protection) for older drivers and passengers? Are older motorists aware of, and utilising, ANCAP data when making vehicle purchasing decisions?

What vehicle design features would further enhance protection for older occupants? Are there any vehicle design features which are distracting or confusing for older drivers?

## **Safer Roads**

What road environment factors are problematic for older road users? Can consumer feedback improve environment design and maintenance so as to enhance the safety of older road users?

## **Safe Systems**

### *Integration*

Is the current model, of safe users, vehicles, roads and systems, broad enough to optimise the safety of older road users? Is the distribution and sharing of information using resources efficiently and achieving the best outcomes?

### *Education*

Are the existing programs and strategies improving road safety for older users? Are they delivered in the most effective formats? Is the content of existing programs and strategies appropriate? Are the messages getting across? Are people sufficiently interested in this issue? If not, how do we motivate them? Are initiatives adequately promoted and accessible? Should they be more widely implemented?

The content of current programs and strategies focus on:

- ◆ educating drivers on the use of medications;
- ◆ ensuring physical deterioration or impairments are appropriately addressed with corrective devices, treatments, medications etc.;
- ◆ First Aid training;
- ◆ modifying driving habits to compensate for impairment associated with ageing (not driving at night, avoiding right hand turns, planning travel outside peak hours, etc.);
- ◆ updating road craft skills (theory and practical).

This study shows that whilst all these areas are important, several issues are not currently reflected in programs and publications. It was considered valuable to recognise and explore all of these points in the consultation phase of this project. Revisions to the structure and content of programs and publications may be indicated.

### *Transport Options*

What transport preferences do older people have? What, if any, are the issues which deter older persons from utilising public transport services more frequently? What would facilitate greater use of public transport by older persons? Would car owners use alternative forms of transport if they were more accessible? Can we economically address these issues? (Perhaps here we need to look beyond the economic viability of public transport services per se and to factor in the economics of reducing road fatalities and injuries.)



### *Licensing and Retiring from Driving*

Are older people accurately assessing their fitness to drive? What information or advice do they rely on to make this decision? Are they adequately preparing to retire from driving? Is the timing of their decisions appropriate? Is an assessment of fitness to drive by a health professional adequate for identifying people whose licences should be revoked?

## 4 CONSULTATIVE PROCESS

### 4.1 SURVEY DESIGN

#### 4.1.1 SURVEY OVERVIEW

A survey was developed in conjunction with the reference group of road safety experts and consumer representatives. It examined:

- ◆ how older people use transport services in the ACT;
- ◆ the services preferred and by which sub-groups;
- ◆ factors determining usage of particular transport services;
- ◆ factors that might influence safe practice by older road users;
- ◆ older road user's awareness of existing programs and road safety messages;
- ◆ the best means to provide road safety information to older road users.

#### 4.1.2 SURVEY PILOTING PROCESS

Once the survey was constructed, a small random sample of older people were initially contacted by telephone and asked to participate in the pilot process. The pilot survey and a small evaluative questionnaire about the survey design were mailed to twenty people who agreed to complete it. They were asked to indicate any questions, which they found difficult to understand and those which they thought might be intrusive. They were also asked to indicate how long the survey took to complete.

As a result of this pilot process, the survey was refined before being distributed to the sample population. The survey instrument can be found at Appendix C.

#### 4.1.3 FINAL SIZE AND CONSTITUTION OF SURVEY

It was determined that COTA would survey a large percentage of the older ACT population in an attempt to capture statistically valid proportions of small sub-sets of the community of older road users (e.g. Motorised Scooter Users).

According to the Australian Bureau of Statistics, there were some 30,200 people aged 65 and over in the ACT at 30 June 2004<sup>57</sup>. It was determined that a sample of around 5% of this population would be appropriate.

Previously, COTA has had exceptionally high response rates to surveys of this population group, often exceeding 50% of those approached. Given this experience and the positive response to the pilot of the survey, we hoped to replicate this response rate and issued some 4000 surveys to a randomly selected group aged 65 and over. In practice we obtained 1460 usable responses, which is a response rate of 36.5% and represents 4.8% of this population group. Given the size of the survey instrument – 7 pages, this is an excellent response rate relative to most commercial surveys.

A computerised random number generator was used to select people from the Seniors Card Database. Most ACT residents' aged 60 and over have a Seniors Card. Postcodes and age cohorts of this survey selection were visually checked to ensure that the sample chosen reflected the population.

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<sup>57</sup> 3235.8.55.001 Population by Age and Sex – Jun 2004, Australian Capital Territory, Australian Bureau of Statistics, Online, <http://www.abs.gov.au>

## 4.2 SURVEY OUTCOMES

### 4.2.1 DEMOGRAPHIC RESULTS

#### Gender

As indicated in Figure 10, approximately equal numbers of men and women responded to the survey. Men represented 50.8% (n=742) of respondents, women represented 48.5% (n=708) of respondents and 0.7% (n=10) respondents failed to indicate their gender. Proportionately more males than females responded to the survey when compared with the ACT population aged 65 and over as males represent 44.6% and females 55.4% of that population. Analysis of living arrangements suggests that where a survey was sent to an individual in a partnership that the male partner was more likely to respond to the survey.

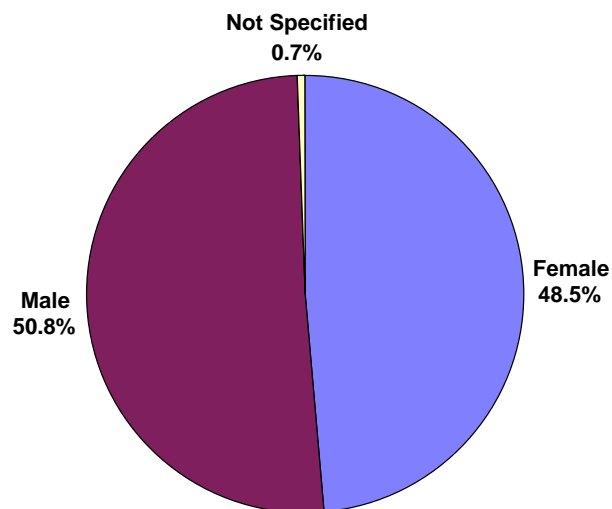


Figure 10: – Gender of Respondents

## Age

Figure 11 shows the numbers and percentages of respondents in each age cohort and compares the distribution to the overall ACT population aged 65 years and over<sup>58</sup>. In general, the percentage of respondents in each age cohort is within 3 percentage points of the cohort's population and the discrepancies are within expected tolerances for this type of survey.

Age	Number of Respondents	Percentage of Sample	ACT Population 30 June 2004	Percentage of ACT 65+ Population
<65	7	0.5%		
65-69	419	29.1%	9,420	31.2%
70-74	384	26.6%	7,198	23.8%
75-79	317	22.0%	6,238	20.6%
80-84	211	14.6%	4,363	14.4%
85+	103	7.1%	3,011	10.0%
<b>Total</b>	<b>1441</b>		<b>30,230</b>	

**Figure 11 – Respondents by Age cohort compared to ACT Population**

There were a small number (n=7) of respondents less than 65 years of age and some were too young to have a Seniors Card (i.e. younger than 60 years of age). It is likely that these respondents were the younger partners of individuals to whom the survey had been sent, that respondents have given the wrong year of birth in this questionnaire, or their birth date is incorrectly recorded on the Seniors Card Database.

<sup>58</sup> Note: For the purposes of Figure 11 only those respondents who included both their gender and their age were included in the analysis.

## Living Arrangements

Respondents were asked to indicate their current living arrangements – see Figure 12. Two-thirds (65.5%) lived with a partner or spouse, 26.0% lived alone, 5.6% lived with others and 4.1% resided in a retirement village.

When the respondent lived in a partnership, men were more likely to complete the survey (64.3%, n=613). In contrast, when the respondent lived alone, women were more likely to respond (71.8%, n=283). While we might expect that more women than men would live alone, given men's shorter life expectancy, the high number of female respondents who lived alone is still surprising. It suggests that where men are available as the driver in a partnership, they were more inclined to respond to the survey, but perhaps when women live alone, they are more likely than men to respond to road safety issues or that women living alone are more likely to respond to surveys.

67% (n=531) of respondents who lived with a partner and used their own vehicle three or more times a week were male. This is significant in the targeting of road safety messages to drivers of vehicles; it is clear that in these partnerships men are more likely to be the driver.

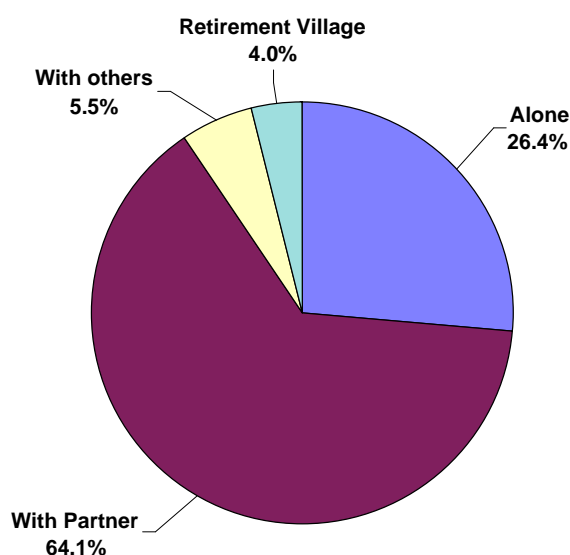


Figure 12: – Living Arrangements

## Geographic Distribution

ABS Region	Number of Responses	<sup>59</sup> ABS Estimate of Population aged 65+	Percentage Responding in Region
North Canberra	224	5236	4.3%
Belconnen	320	7342	4.4%
Woden Valley	225	4884	4.6%
Weston Creek – Stromlo	145	2923	5.0%
Tuggeranong	221	4938	4.5%
South Canberra	181	3655	5.0%
Gungahlin – Hall	59	1220	4.8%
(Post Code Not Specified)	85		
Total	1460	30230 <sup>60</sup>	4.8%

**Figure 13: – Responses by ABS Statistical Regions for the ACT**

Figure 13 shows the distribution of responses by ABS Statistical Local Regions for the ACT. The number of questionnaire responses ranges from 4.3% to 5.0% of the number of older people in these areas of the ACT – a maximum variation of 0.7 percentage points.

Figure 14 shows this distribution of responses by postcode overlaid on a map of the ACT.

<sup>59</sup> ABS Population Estimates by Statistical Region within ACT, 2004

<sup>60</sup> Includes 32 people living in the remainder of the ACT

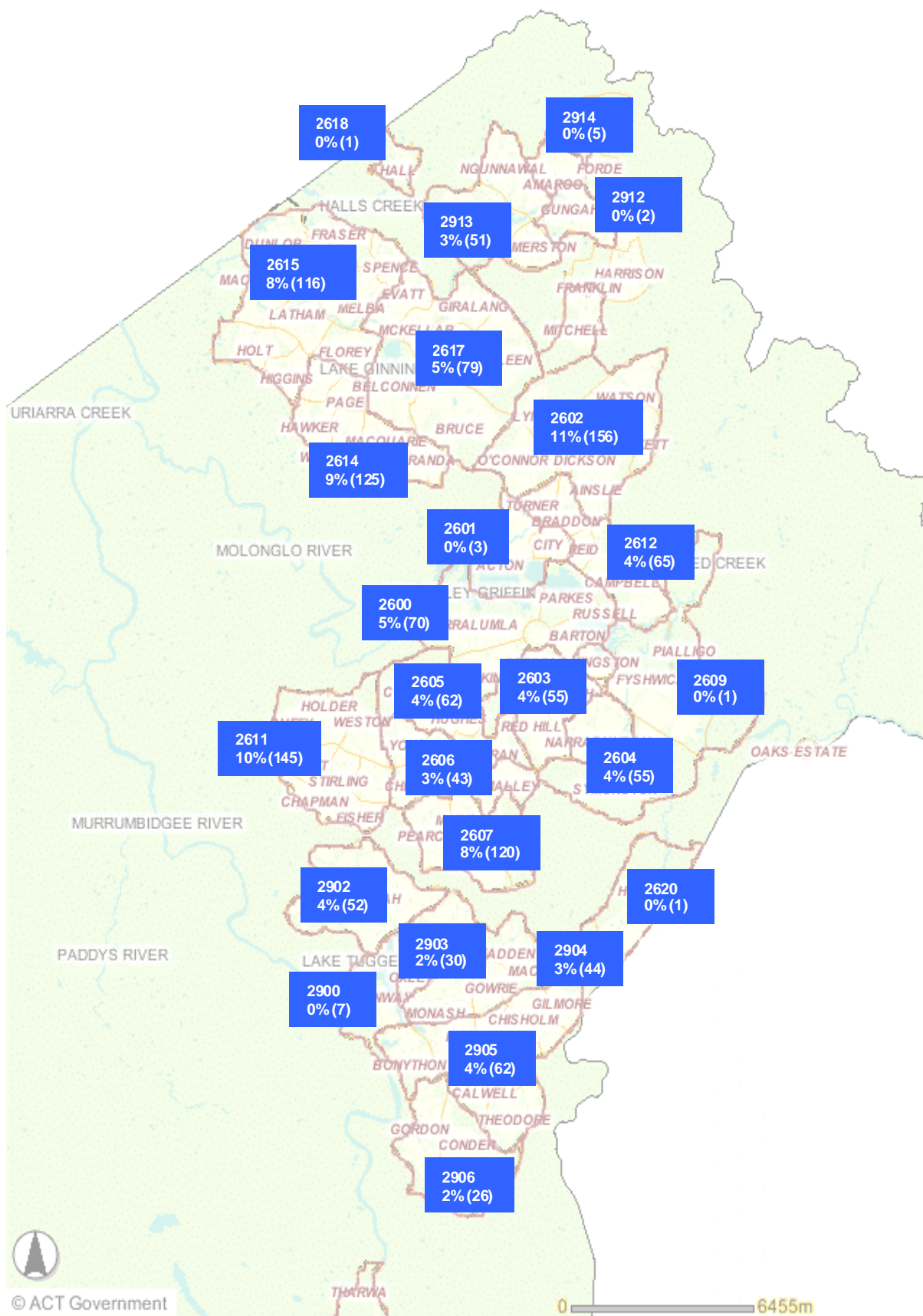


Figure 14: – Postcode Response Density Map



## **Cultural and Linguistic Diversity**

Four (4) respondents indicated that they were of Aboriginal or Torres Strait Islander descent. This sample was too small to allow separate analysis.

Twelve per cent (n=171) of respondents indicated that English was not their first language. Fifty-one (51) different languages were listed. In most cases each language was nominated as the first language of only 1 or 2 respondents. Languages given by 5 or more respondents as their first language are shown in Figure 15.

Language	First Language Speakers (Number)	First Language Speakers (%)
Polish	5	2.9%
Russian	5	2.9%
Spanish	5	2.9%
Finnish	6	3.5%
Greek	7	4.1%
Dutch	16	9.4%
Italian	23	13.5%
German	31	18.1%

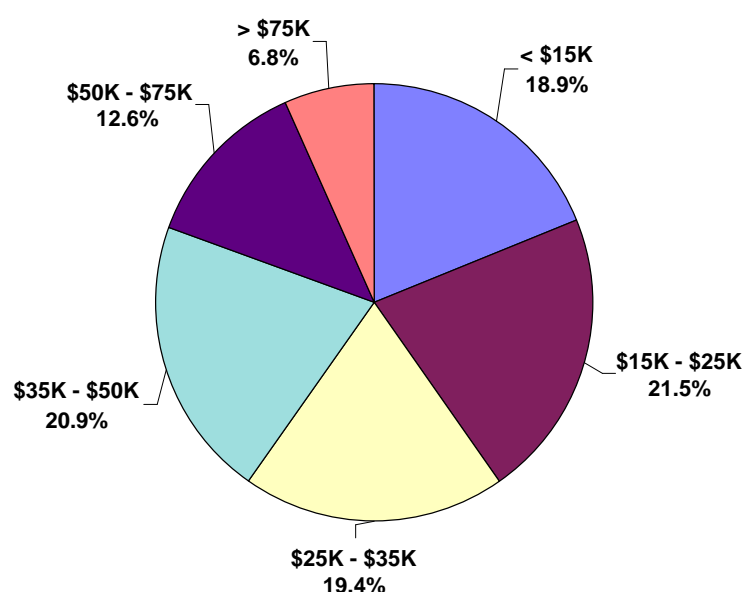
**Figure 15: – First Language of Respondents**

It was noted in particular that no Vietnamese or Cambodian speakers responded. Likewise, we lacked responses from people from the Middle East. While it is not possible to determine the precise reasons for this, some on the reference group noted that there is anecdotal evidence that these groups do not tend to respond to requests for personal information. This may make it harder to approach these people with road safety messages and perhaps could mask any particular needs for these cultural groupings. It is also possible that these people are under-represented on the senior's card database.

## Income

Respondents were asked to indicate their combined income – i.e. the total income for the couple or the income for the respondent when living alone.

Figure 16 shows the percentage of respondents in each income category<sup>61</sup>. If we combine the over \$50,000 categories, then the proportion of respondents is evenly distributed with approximately 20% in each category.



**Figure 16: – Income Ranges – Combined Income**

However, further analysis shows differing levels of income depending on the gender of the respondent regardless of whether living in a couple relationship or living alone. Figures 17 and 18 are of the income of male and female respondents when in a couple relationship. Figures 19 and 20 show the income distribution of male and female respondents when living alone. The disparity between income levels for those living alone is well documented with clear evidence that, on average, retired men have higher income than females. However, the reason for the difference in the

<sup>61</sup> Note: Sixty one (61), respondents did not answer the question about income and are excluded from this analysis

income for men and women respondents living in couple relationships is difficult to determine.

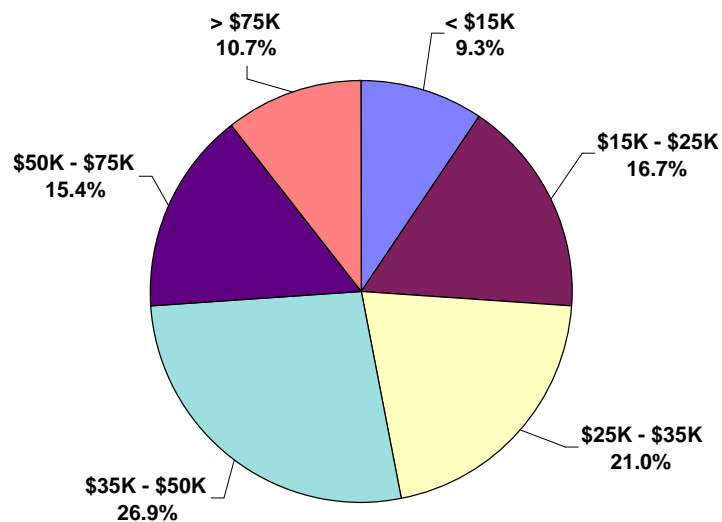


Figure 17: – Combined Income Ranges  
(Percentage of Male Respondents – In a couple relationship)

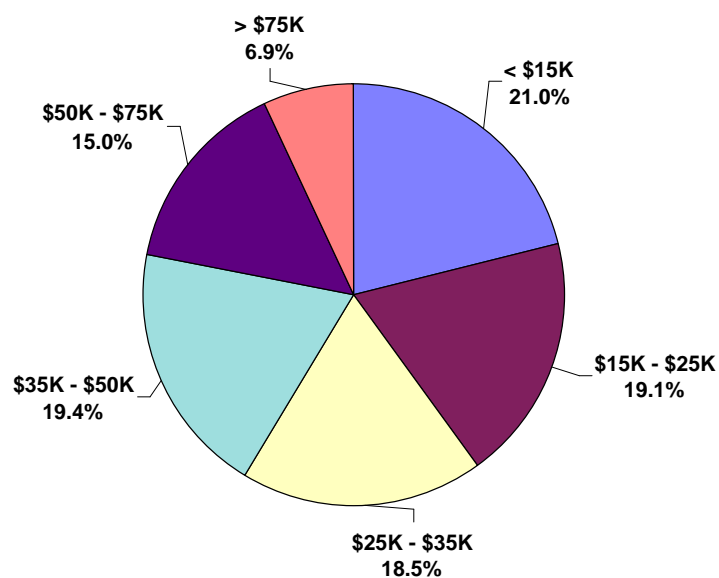


Figure 18: – Combined Income Ranges  
(Percentage of Female Respondents – In a couple relationship)

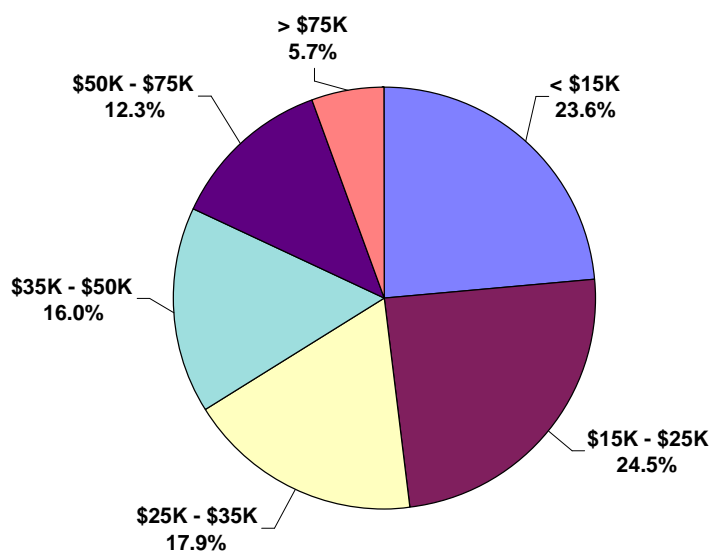


Figure 19: – Income Ranges  
(Percentage of Male Respondents – Living Alone)

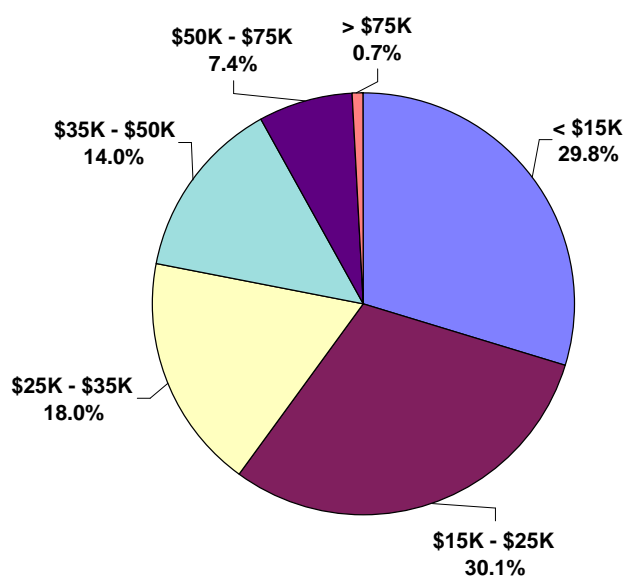


Figure 20: – Income Ranges  
(Percentage of Female Respondents – Living Alone)

## **Issues – Demographics**

Road safety experts and the related literature tend to group those aged 65 and over as a specific group for road safety issues. This is largely based on statistics which suggest that it is from 65 that the risk of death per kilometre travelled starts to rise again. It is a "U" shaped curve with both younger and older people having greater fatalities than those in the middle age ranges. In Australia (and most other OECD countries), the population aged 65 and over are referred to as "Older Road Users".

This survey, while not disputing the U-curve finding, raises significant issues concerning the risk associated with grouping people aged 65 and over, at least for the ACT population.

Consider the following examples of distinguishing factors for this age group:

- ◆ Proportionately more men than women responded to the survey.
- ◆ When in a couple relationship, there is evidence that men do most of the driving. However, when living alone, it was mainly women who responded to the survey and who drive themselves. There is a wide variation in income and this influences transport choices and options. The older age group includes those from the post-war migratory period. Some have satisfactory oral skills but limited written English skills. As a consequence, people from non-English speaking backgrounds are likely to be under represented, but, even so, 11.7% of respondents indicating that they come from culturally and linguistically diverse groups. Language skills could be a factor for a sizeable proportion of this group. Strategies based around the written word may have less impact for some of these people.

Given the relatively small size of the ACT population, it is difficult to explore this factor further, but it is an issue that could well be further considered at a federal road safety level and the results would be directly applicable to the ACT community.

Road safety messages and approaches need to take account of the wide diversification of those aged 65 years and older and be cautious of responding to and

developing road safety strategies and messages for this cohort as a single homogenous "older road user" group.

#### 4.2.2 TRANSPORT EXPERIENCE

Question 8 of the survey asked respondents about transport services they used.

Usage was indicated as: '*Never*', '*Irregularly*', '*Once per Month*', '*Once per Week*', or '*Three or more per Week*'.

This question was designed to gain an overview of the importance of different transport options and allow analysis of particular transport preferences.

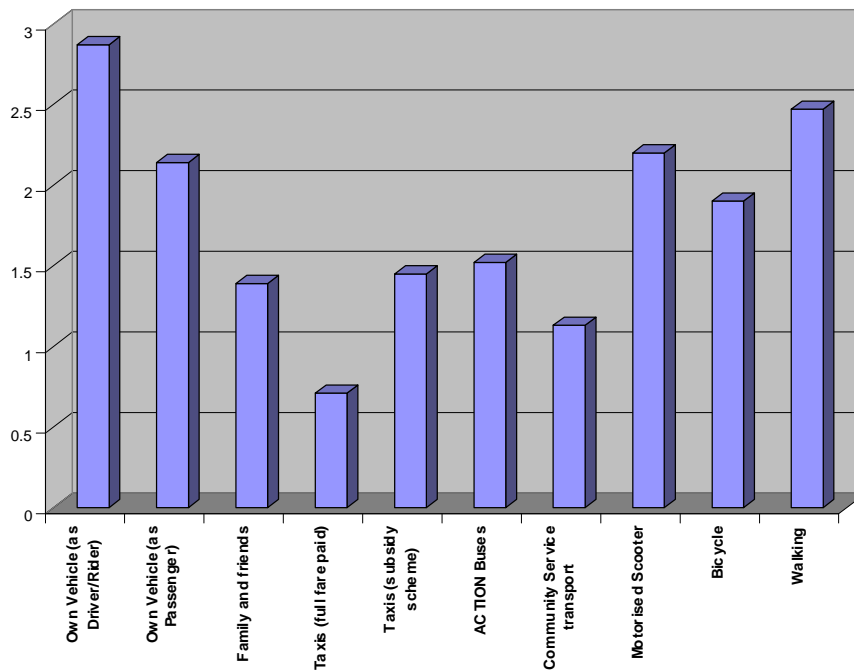


Figure 21: – Frequency of Journeys per respondent per week by mode of Transport.

Transport Mode	Total Journeys /Month	Journeys /respondent/ week
Driver in own car	13613	2.87
Walking	7187	2.47
Motorised Scooter	88	2.20
Passenger in own car	3177	2.14
Bicycle	440	1.90
ACTION Buses	1439	1.52
Taxi (Subsidy)	221	1.45
Family & Friends	1311	1.39
Community Transport	68	1.13
Taxi (Full Fare)	111	0.71

**Figure 22: –Travel Mode by  
Journeys per Month & Journeys per respondent per week**

The total journeys made each month (see Figure 22) provides a method of ranking travel methods in terms of popularity, but does not directly relate the importance to respondents of any particular transport option. Considering the average number of journeys per respondent per week (see Figures 21 and 22) illustrates the importance of a transport option to the respondent. While an enormous number of journeys per month are as the driver of a car (13,613) and this is nearly twice the number of journeys per month by walking (7,187), the average number of journeys per respondent per week is similar, 2.87 as a driver and 2.47 as a pedestrian. Likewise we can see that while the number of journeys per month by motorised scooter is only 88, each respondent who uses a motorised scooter for transport makes an average of 2.2 journeys per week. The motorised scooter is a more frequently used mode of transport for these people than, for example, those who use ACTION buses at 1.52 journeys per week.



Figures 23 to 32 show the responses to questions relating to usage of different type of transport. Each table shows two separate percentages for each. The column headed "*% of respondents to this sub-question*" shows the percentage of respondents indicating a usage frequency for the transport type. Because not every respondent answered each question (despite the response "never" being available) and in order to allow some comparison of transport type usage across all respondents, the number of respondents indicating a frequency of use for each transport type has also been calculated as a percentage of the total number of survey respondents. ("*% of all survey respondents*"). Most, 87.1% (n=1272) of respondents answered the questions about usage of their own vehicle as a driver.

Own Vehicle as the Driver	Total	% Of Respondents to this sub-question	% Of All Survey Respondents
3-or-more-per-week	1111	87.3%	76.1%
1-per-Week	69	5.4%	4.7%
1-per-Month	5	0.4%	0.3%
Irregularly	20	1.6%	1.4%
Never	67	5.3%	4.6%
No-Response	188		12.9%

**Figure 23 – Frequency of Use – Own Vehicle as Driver**

Over three-quarters of respondents (76.1%, n=1111) drive their own vehicle three or more times per week, a further 4.7% (n=69) drive their own vehicle about once per week. Overall, this response highlights the centrality of the personal motor vehicle as the preferred mode of transport for older people. Over 80% of respondents use their car once a week or more.

Of those who did not respond to this question (n=188), 110 indicated that they do not currently have a licence. A surprising result is that 0.5% (n=8) indicated they do not have a licence and they drive 3 or more times per week. It is unclear whether this is a misinterpretation of the question or truly does indicate the percentage of people who do not have a licence and who continue to drive.

When asked to indicate the use of their own vehicle as a passenger, 49.3% (n=721) of respondents answered this segment of the question.

Own Vehicle as the Passenger	Total	% Of Respondents to this sub-question	% Of All Survey Respondents
3-or-more-per-Week	222	30.8%	15.2%
1-per-Week	121	16.8%	8.3%
1-per-Month	29	4.0%	2.0%
Irregularly	192	26.6%	13.2%
Never	157	21.8%	10.8%
No-Response	739		50.6%

**Figure 24 – Frequency of Use – Own Vehicle as Passenger**

Passengers in their own vehicle at least once a month totalled 372 or 25.5% of all respondents; including 15.2% (n=222) of respondents who were a passenger in their own vehicle 3 or more times per week. Most passengers in their vehicle once a month or more also indicated that they had a drivers licence (86.5%, n=192). Some 208 or 93.7% of those who were a passenger in their own vehicle 3 or more times per week also lived with a spouse or partner. Two-thirds of these are female (66.8%, n=139) compared to one-third male (33.2%, n=69). In couple relationships, women are twice as likely to be the passenger.

When asked to indicate frequency of travel with family or friends as a passenger 51.6%% (n=754) of respondents answered this segment of the question.

Travel with Family & Friends	Total	% Of Respondents to this sub-question	% Of All Survey Respondents
3-or-more-per-Week	70	9.3%	4.8%
1-per-Week	102	13.5%	7.0%
1-per-Month	63	8.4%	4.3%
Irregularly	449	59.5%	30.8%
Never	70	9.3%	4.8%
No-Response	706		48.4%

**Figure 25 – Frequency of Use – Travel with Family & Friends**

As shown in Figure 25, almost half of respondents, 46.9% (n=684), indicated that they do use family and friends for transport, only 16.1% (n=235) indicated that they

do it regularly – 1-per-month or more. Of those who use family and friends regularly, 62.6% (n=147) also indicated that they drove their own car 3 or more times per week.

47.1% (n=687) of respondents answered the section on the use of taxis as full-fare customers. Only 2.7% (n=39) of all survey respondents indicated that they regularly used Taxis and paid the full fare, see Figure 26.

Travel using Taxis paying Full Fare	Total	% Of Respondents to this sub-question	% Of All Survey Respondents
3-or-more-per-Week	3	0.4%	0.2%
1-per-Week	13	1.9%	0.9%
1-per-Month	23	3.3%	1.6%
Irregularly	345	50.2%	23.6%
Never	303	44.1%	20.8%
No-Response	773		52.9%

**Figure 26 – Frequency of Use – Travel in Taxis Paying Full Fare**

About one quarter (23.6%, n=345) of respondents use taxis irregularly. Interestingly, the overall regular use does not increase for people who use the Taxi Subsidy Scheme (see Figure 27). The reasons seem to relate to the cost and this will be analysed when we examine responses to questions 27-33, see section 4.5 Transport Options.

40.0% (n=584) of respondents answered the question about use of subsidised taxi services. .

Travel using Taxis with Subsidy	Total	% Of Respondents to this sub-question	% Of All Survey Respondents
3-or-more-per-Week	12	2.1%	0.8%
1-per-Week	17	2.9%	1.2%
1-per-Month	9	1.5%	0.6%
Irregularly	63	10.8%	4.3%
Never	483	82.7%	33.1%
No-Response	876		60.0%

**Figure 27 – Frequency of Use – Travel in Taxis Utilising Subsidy**

Figure 27 shows that only a small number of people use taxis regularly even when they have access to the subsidy scheme, although interestingly there is a slight increase in the number using a taxi 3 or more times per week when they have the subsidy available.

Overall, there appears to be no linkage between access to a vehicle, or possession of a licence and use of taxis. It could be useful to further investigate the reasons for use (and non-use) of taxis by older people.

Almost two-thirds of respondents, 63.0% (n=920) completed the section on ACTION buses.

Travel using ACTION Buses	Total	% Of Respondents to this sub-question	% Of All Survey Respondents
3-or-more-per-Week	90	9.8%	6.2%
1-per-Week	71	7.7%	4.9%
1-per-Month	75	8.2%	5.1%
Irregularly	419	45.5%	28.7%
Never	265	28.8%	18.2%
No-Response	540		37.0%

**Figure 28 – Frequency of Use – Travel on ACTION Buses**

Almost half the people, 44.9% (n=655), use ACTION buses. However, the number of people using buses regularly (16.2%, n=236) is similar to the number of people who

regularly use transport provided by family and friends. The Sustainable Transport Plan<sup>62</sup> suggested that in 2001 only 6.9% of people used buses as their primary method of travel to work. While not directly related, 6.2% of older people use buses 3 or more times per week indicating that the usage pattern of younger and older Canberrans is possibly similar. This is of some concern given that we would expect that older Canberrans might be more likely to use buses and that usage would increase as people reduce their driving or give up their licences.

One-third, 33.3% of those who do not have a car use buses 3 or more times per week (see Figure 33) compared with 3.0% of those with a car.

Information on the Community Transport Services was completed by 41.0% (n=598) of respondents.

Travel using Community Service Transport	Total	% Of Respondents to this sub-question	% Of All Survey Respondents
3-or-more-per-Week	1	0.2%	0.1%
1-per-Week	14	2.3%	1.0%
Irregularly	29	4.8%	2.0%
Never	554	92.6%	37.9%
No-Response	862		59.0%

**Figure 29 – Frequency of Use – Travel using Community Service Transport**

Only small numbers of people use Community Service Transport options; with 1.1% (n=15) of people indicating that they use it regularly and a further 2.0% (n=29) irregularly (see Figure 29).

62 Sustainable Transport for the ACT An Issues Paper, Planning and Land Management, June 2003

When asked to indicate frequency of travel using a motorised scooter 40.1% (n=588) of respondents answered this segment of the questionnaire.

Travel by Motorised Scooter	Total	% Of Respondents to this sub-question	% Of All Survey Respondents
3-or-more-per-Week	6	1.0%	0.4%
1-per-Week	4	0.7%	0.3%
Irregularly	5	0.9%	0.3%
Never	573	97.4%	39.2%
No-Response	872		59.7%

**Figure 30 – Frequency of Use – Travel using Motorised Scooter**

As indicated in Figure 30, only small numbers (0.7%, n=10) of respondents regularly use a motorised scooter as a mode of transport. This is from a total of 15 users of motorised scooters. About half, 46.7% (n=7), of those who use a scooter also have access to a car. Of the six people who use a scooter “3-or-more-per-week”, only 1 has a licence to drive. Similarly, only one of the four “1-per-week” scooter users has a licence to drive. All five (5) of those who use a scooter “Irregularly” retain a licence to drive.

Responses on bicycle use were provided by 41.9% (n=612) of respondents.

Travel by Bicycle	Total	% Of Respondents to this sub-question	% Of All Survey Respondents
3-or-more-per-Week	29	4.7%	2.0%
1-per-Week	21	3.4%	1.4%
1-per-Month	8	1.3%	0.5%
Irregularly	78	12.7%	5.3%
Never	476	77.8%	32.6%
No-Response	848		58.1%

**Figure 31 – Frequency of Use – Travel using a Bicycle**

More people indicated that they used a bicycle as a mode of transport regularly (3.9%, n=58) than those using a taxi regularly (full fare). Of the 58 people who use a bicycle regularly only 19 % (n=11) are female compared to 81% (n=47) male.

66.2% (n=967) of respondents answered the question about walking as a form of travel.

Travel by Walking	Total	% Of Respondents to this sub-question	% Of All Survey Respondents
3-or-more-per-Week	547	56.6%	37.5%
1-per-Week	148	15.3%	10.1%
1-per-Month	31	3.2%	2.1%
Irregularly	182	18.8%	12.5%
Never	59	6.1%	4.0%
No-Response	493		33.8%

**Figure 32 – Frequency of Use – Travel using Walking**

With 37.5% (n=547) of respondents indicating that they walk 3 or more times per week, walking as a regular mode of transport is second only to driving their own vehicle. Overall 62.2% (n=908) of all respondents indicated that they walk as a mode of transport at some time. Given the high risk of injury as a pedestrian, this makes pedestrian issues a major road safety concern.

The transport experience of those without access to a motor vehicle is interesting. Ninety (90) people identified that they did not have a vehicle (figure 33).

Transport Mode	Number using regularly	Percentage using regularly
ACTION Buses	43	47.8%
Walking	38	42.2%
Family and friends	26	28.9%
Taxis (subsidy scheme)	16	17.8%
Taxis (full fare paid)	11	12.2%
Community Service Transport	6	6.7%
Motorised Scooter	5	5.6%
Own Vehicle (as passenger)	4	4.4%
Bicycle	3	3.3%
Own Vehicle (as driver/rider)	2	2.2%

**Figure 33 – Transport Usage when no Car Available**

The importance of ACTION as a principle mode of transport is clear and for independent travel over any distance its importance cannot be understated. While walking is also important, it is difficult to believe that it is being used for any purpose other than short, close to home, journeys. Nearly one third rely on family and friends for some of their regular transport needs.



### 4.2.3 ISSUES – TRANSPORT EXPERIENCE

As we might expect, the car remains the principle mode of transport and driver safety and the contribution of passengers to driving safety must remain a key target of road safety measures.

In addition, walking is highly rated and given that 25% of all road fatalities for those aged 65 and over are pedestrians, greater attention to road safety messages and strategies for older pedestrians is needed.

From a road safety aspect, the total number of journeys per month (see Figure 22) is an important measure of the relative importance of any one category of transport and therefore the targeting of the road safety dollars. Consider that extrapolating this response to the total ACT population aged 65 and over suggests that older drivers make around 280,000 journeys per month. Similarly, older pedestrians make over 145,000 journeys per month.

The total number of journeys for less used methods with smaller numbers involved must also be considered. For example, while in this survey, only 10 respondents indicated use of a motorised scooter at least once per week this equates to more than 1830 journeys per month for this population overall. Similarly, this age group makes over 9000 bicycle journeys each month.

## 4.3 DRIVERS AND MOTORCYCLISTS

Respondents were asked a series of questions related to their driving experience and practice. In the main motorcyclists were asked to treat questions relating to driving as also applying to riding.

### 4.3.1 LICENSING

Licence Status	Number of Respondents	Percentage of respondents
Never Licensed	79	5.4%
< 10 Years	6	0.4%
11-20 Years	11	0.8%
21-30 Years	35	2.4%
31-40 Years	144	9.9%
41-50 Years	502	34.4%
50+ Years	601	41.2%
Not Answered	82	5.6%

**Figure 34 – Years Licence Held**

Figure 34 shows how many years' respondents have held a licence. Most respondents (89%, n= 1299) have held a licence at some stage with the majority (75.6%, n=1103) having held a licence for more than 40 years. Only 5.4% (n=79) of respondents indicated that they have never held a licence to drive.

The combination of those who have never held a licence (n=79) and those who did not answer the question (n=82) matches that of those who indicated that they do not currently have a licence (n=160), suggesting that some who do not currently have a licence did not answer this question. Significant gender differences exist among those who have never held a licence. Only 10 of these are male compared with 69 females.

The vast majority of respondents, 85.3% (n=1246) indicated that they retain a licence to drive. This suggests that about 3.7% of respondents have either surrendered their driver's licence or had it revoked. A significant number, 4.6% (n=67) of respondents indicated that they also have a licence to ride a motorcycle.

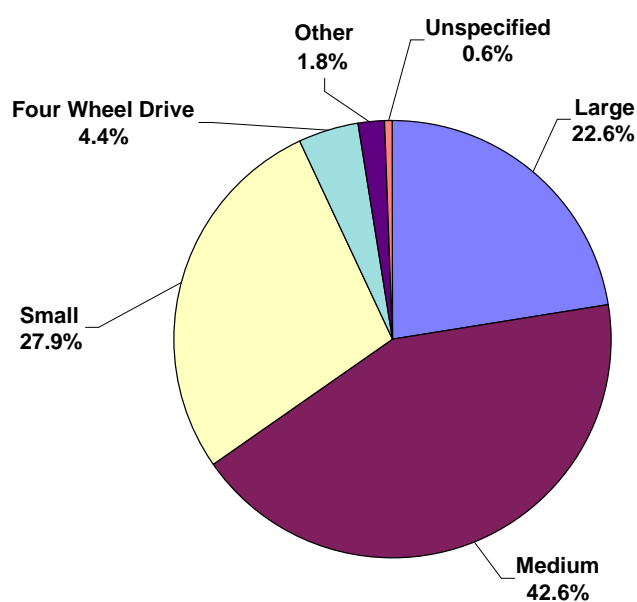
Of those who indicated that they have a licence to drive, 97.5% (n=1215) also indicated that they have regular access to a car. A further 24 respondents indicated that they do not have a licence but do have access to a car.

### 4.3.2 TYPE AND AGE OF CAR

For those who drive and who have regular access to a car, 74.5% (n=905) indicated that the car was an automatic, while 24.2% (n=294) indicated that the car was a manual.

Type of Car	Number of Female Respondents	Percentage of Female Respondents	Number of Male Respondents	Percentage of Male Respondents	Number of all Respondents	Percentage of all Respondents
Large	91	17.2%	184	27.1%	275	22.6%
Medium	212	40.1%	302	44.5%	518	42.6%
Small	210	39.6%	126	18.6%	339	27.9%
Four Wheel Drive	10	1.9%	43	6.3%	54	4.4%
Other	1	0.2%	21	3.1%	22	1.8%
Unspecified	5	0.9%	2	0.3%	7	0.6%
Total	529		678		1215	100.0%

**Figure 35 – Type of Car**  
(for those who hold a licence and have regular access to a car)



**Figure 36 – Type of Car**  
(for those who hold a licence and have regular access to a car)

Figures 35 and 36 show the types of cars driven by older people. Only a small number (4.4%, n=54) indicated that they had access to a 4-wheel drive. This is interesting given the perception of large numbers of "Grey Nomads" traversing the

country. The vast majority (93.1%, n=1132) indicated a conventional style car with most (42.6%, n=518) indicating that the car was medium sized. Of some concern is the significant number (27.9%, n=339) who indicated that they have access to a small car. Given that frailty amongst older drivers and passengers is indicated in relation to road trauma, having over a quarter ( $\frac{1}{4}$ ) of respondents driving a smaller car may increase the risk of death and injury.

Age of Vehicle	Number in Age Range	Percentage of all vehicles
0-4	345	30.6%
5-9	354	31.4%
10-14	224	19.9%
15-19	121	10.7%
20-24	55	4.9%
25-29	17	1.5%
30-35	11	1.0%
Total	1127	

**Figure 37 – Age of Vehicles**  
(for those who hold a licence and have regular access to a car)

Figure 37 shows the age of vehicles driven. We can see that 62% (n=699) are less than 10 years old and 30.6% (n=345) being less than 5 years old. The number of older cars is a concern; nearly one in five (18.1%, n=204) vehicles are 15 or more years old. This is a concern because we know that older vehicles lack modern safety features and are statistically more likely to be involved in accidents resulting in serious injury or fatality, especially for seniors.

Age of Vehicle	Large		Medium		Small		4 - wheel drive		Other		Not Specified
0-4	64	18.6%	153	44.3%	100	29.0%	25	7.2%	1	0.3%	2
5-9	82	23.2%	158	44.6%	93	26.3%	14	4.0%	6	1.7%	1
10-14	62	27.7%	99	44.2%	54	24.1%	5	2.2%	4	1.8%	
15-19	28	23.1%	43	35.5%	43	35.5%	5	4.1%	2	1.7%	
20-24	13	23.6%	22	40.0%	14	25.5%	2	3.6%	4	7.3%	
25-29	3	17.6%	4	23.5%	9	52.9%			1	5.9%	
30-35	3	27.3%	4	36.4%	1	9.1%			2	18.2%	1
Total	255	22.6%	483	42.9%	314	27.9%	51	4.5%	20	1.8%	4

Figure 38 – Age of Vehicles by Type of Vehicle<sup>63</sup>

When we look at the age of vehicle by type of vehicle (large, medium, small, four-wheel drive and other – see Figure 38), it can be seen that 4-wheel drives tend to be newer. Overall there is a high degree of consistency in terms of the percentage of type by age of vehicle. This suggests that car size is relatively consistent regardless of the age of the car being purchased and by implication when it has been purchased. Only in the last 5 years has there been a shift from large sedan type vehicles towards either smaller cars or four-wheel drive vehicles. There are nearly 1.5 times as many four-wheel drive vehicles being driven when the car is under 5 years old when compared to vehicles aged between 5 and 9 years.

Age of Driver	4-wheel Drive	% Of 4-wheel drive vehicles
65-69	23	44.2%
70-74	15	28.8%
75-79	8	15.4%
80-85	6	11.5%
>85	2	3.8%

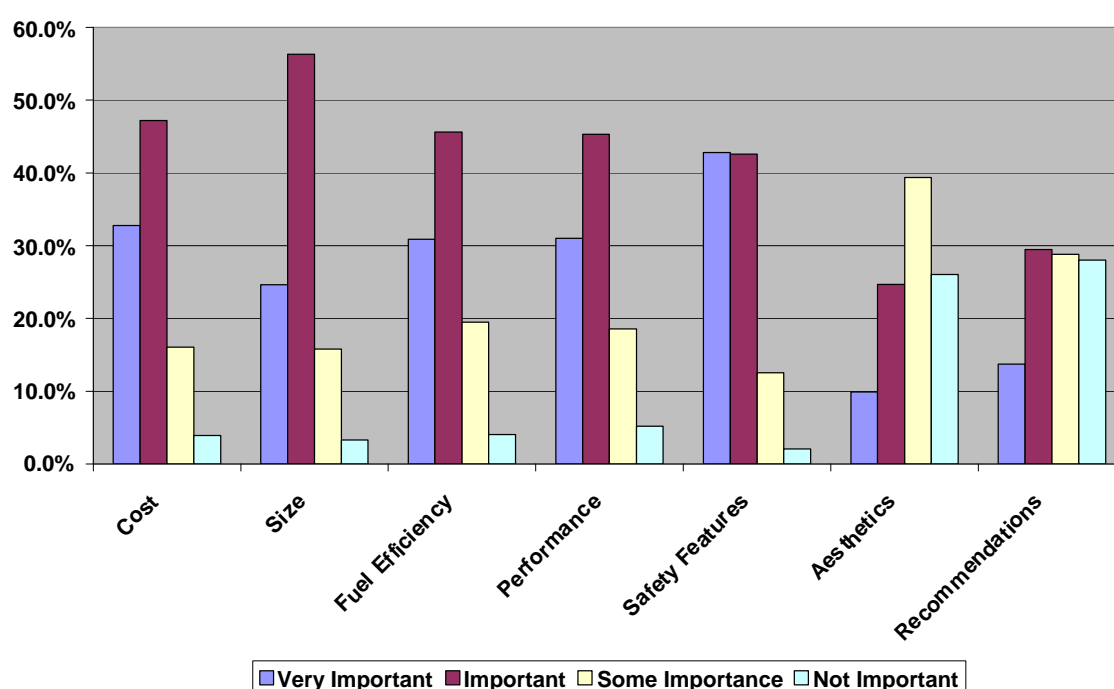
Figure 39 – Age of Driver of Four-Wheel Drive Vehicle  
(for those who hold a licence and have regular access to a car)

As shown in Figure 39, most four-wheel drive vehicles are being driven by those aged under 75 (73%). The proportion driving four-wheel drive vehicles declines with age.

<sup>63</sup> Percentages are calculated as the proportion of all vehicles of a given age. (i.e. read across the row.)

	Very Important	Important	Some Importance	Not Important	Not Specified
Cost	375	540	184	45	71
Size	276	631	177	37	94
Fuel Efficiency	345	510	218	45	97
Performance	341	498	204	57	115
Safety Features	471	469	138	23	114
Aesthetics	104	259	413	273	166
Recommendations	134	288	282	274	237

**Figure 40 – Importance of Selection Factors – Last Car Purchase**  
(for those who hold a licence and have regular access to a car)



**Figure 41 – Selection Factor by Percentage of Importance – Last Car Purchase**

Given the importance of vehicle size and safety features in determining injury risk in an accident, it is important to understand what factors are impacting in the choice of vehicles. Respondents were asked to rate a small range of selection factors in terms of importance in relation to their last car purchase. Figures 40 and 41 show the responses to this question. The key factors influencing a decision to purchase a particular car are Size, Fuel Efficiency, Performance and Safety features – all with a similar importance. Aesthetics and receiving a recommendation have significantly less weighting. Figure 42 below combines the “Very Important” and “Important” ratings and suggests that safety features were rated highest overall when considering the purchase of their last car.

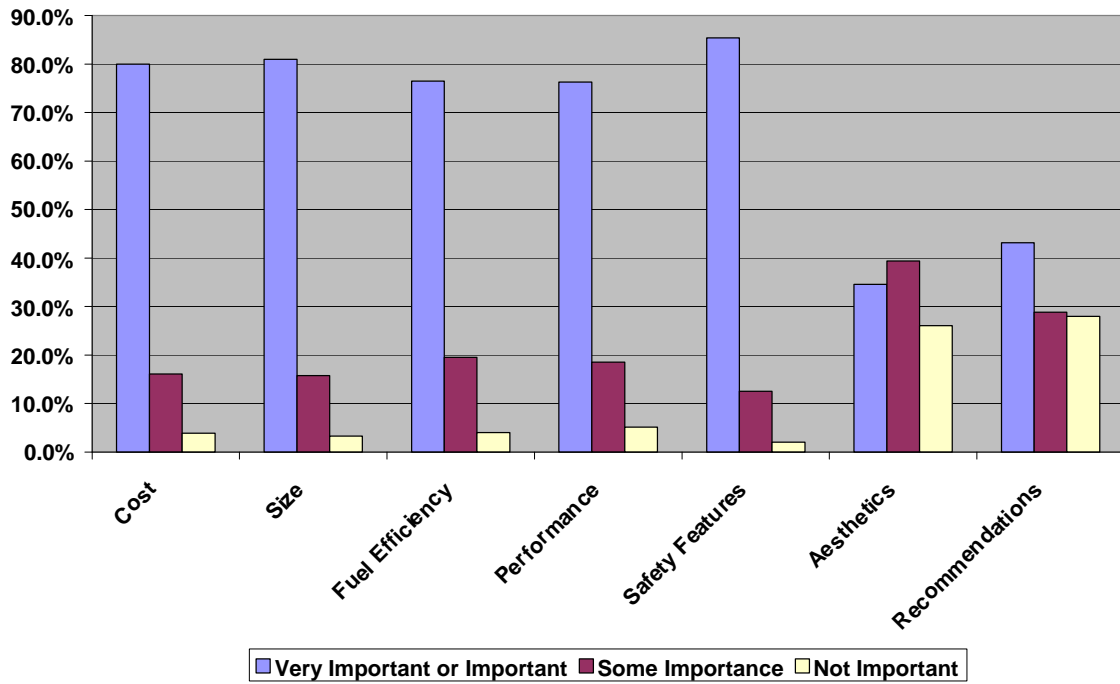


Figure 42 –Selection Factor by Percentage of Importance – Last Car Purchase

Notwithstanding that Safety Features rated highest as demonstrated in Figure 42, it must be noted that it is only slightly higher than Cost, Size, Fuel Efficiency and Performance. Given that safety features can make such a difference in survival rates as a result of an accident, it should rate relatively much higher than the other features for older purchasers.



### 4.3.3 ACCIDENTS

Respondents were asked to indicate whether they had been involved in an accident in the last 12 months. 5.2% (n=76) reported having had an accident, with most (82.9%, n=63) indicating a single accident. Four (4) people indicated that they had 2 accidents within the last year, while nine (9) reported having had an accident but did not indicate the actual number.

Age	Accident in last 12 months	Number in age range	% Of Age range
65-69	28	419	6.7%
70-74	15	384	3.9%
75-79	16	317	5.0%
80-84	14	211	6.6%
85-89	3	81	3.7%

**Figure 43 – Accidents (last 12 months) by Age**

The highest percentage of accidents was by those 65-69 years of age, perhaps because they are more mobile and therefore more exposed to the possibility of an accident. (Figure 44 below relates the number of journeys made per week by age and shows, as we might expect younger drivers make more journeys per week.) The accident rate then drops for the 70-74 age cohort before rising again with increasing age. The 80-84 age cohort reported a similar percentage of accidents to that of the 65-69 age cohort while reporting less journeys

#### 4.3.4 JOURNEYS AND DISTANCE TRAVELLED

Figure 44 shows the number of journeys made in the previous week. Most respondents (52.4%, n=636) made between 3 and 8 journeys in the week. However, 24.3% (n=295) reported more than 10 journeys in the week.

No of Journeys in previous week	Total	Percentage of Drivers
Did Not Drive	46	3.8%
1 - 2	95	7.8%
3 - 4	225	18.5%
5 - 6	217	17.9%
7 - 8	194	16.0%
9 - 10	132	10.9%
> 10	295	24.3%
Not Specified	11	0.9%

Figure 44 – No of Journeys in Previous Week  
(for those who hold a licence and have regular access to a car)

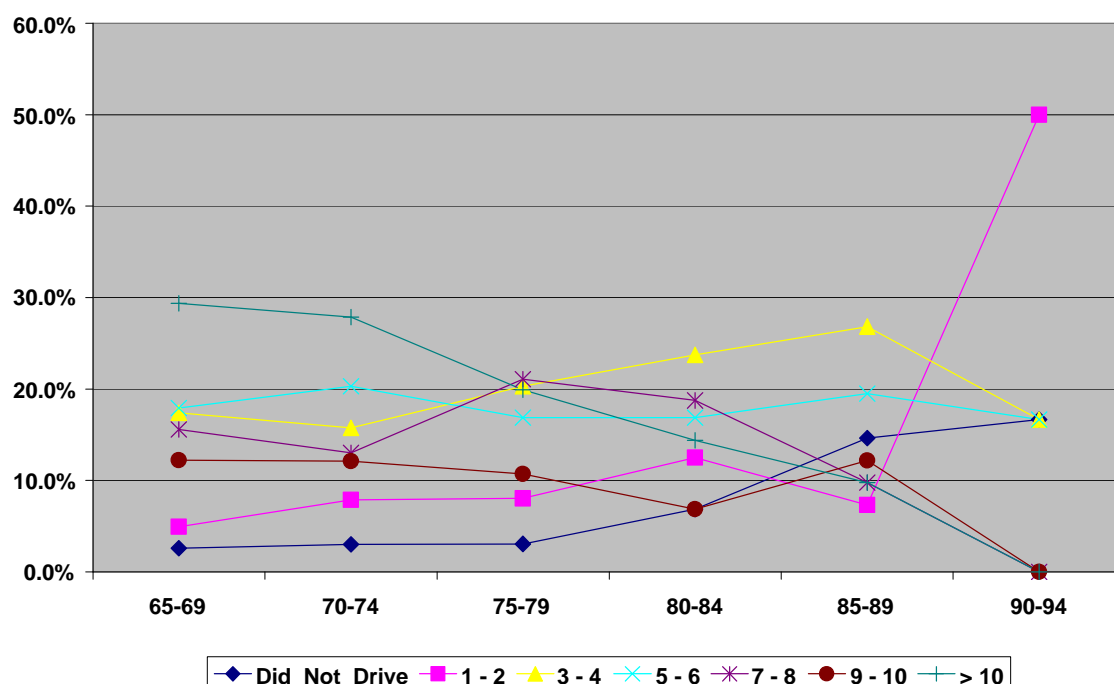


Figure 45 – Percentage of Journeys in previous week by Age Cohort

Figure 45 further examines the number of journeys made per week by determining the proportion of journey types against the age of respondents. While the result is complex, it clearly shows that the average number of journeys reduces with age. The number of longer journeys declines while the number of short trips increases, as

people get older. The ">10" journeys line reduces directly with age and the "1-2" journeys per week line tends to increase with age.

Kilometres' Driven in Previous Week	Numbers of Drivers	Percentage of Drivers
Did Not Drive	41	3.4%
1 - 10	41	3.4%
11 - 50	239	19.7%
51 - 100	333	27.4%
101 - 300	367	30.2%
301 - 500	93	7.7%
> 500	75	6.2%
Not Specified	26	2.1%

**Figure 46 –Distance Travelled in Previous Week**  
(for those who hold a licence and have regular access to a car)

Almost twice as many people drove more than five hundred kilometres as those that did not drive in the week, see Figure 46. It also shows that most people (77.3%, n=939) travel between 50 and 300 kilometres per week.

Kilometres' in Previous Week	Journeys in Previous Week								Total
	Did Not Drive	1 - 2	3 - 4	5 - 6	7 - 8	9 - 10	> 10	Not Specified	
Did Not Drive	40						1		41
1 - 10		29	10			1	1		41
11 - 50	2	54	88	45	27	9	12	2	239
51 - 100	1	9	90	89	59	32	53		333
101 - 300		2	25	63	86	55	130	6	367
301 - 500			2	9	11	17	54		93
> 500			7	7	6	16	38	1	75
Not Specified	3	1	3	4	5	2	6	2	26
<b>Total</b>	<b>46</b>	<b>95</b>	<b>225</b>	<b>217</b>	<b>194</b>	<b>132</b>	<b>295</b>	<b>11</b>	<b>1215</b>

**Figure 47 – Total Distance Travelled in Previous Week by Number of Journeys**  
(for those who hold a licence and have regular access to a car)

Figure 47 further compares the kilometres driven against the number of journeys made. It reveals that most people are making a significant number of short journeys. For example, the largest group are those making more than 10 journeys and who

travelled between 101 and 300 kilometres (n=130) – this indicates average journeys of less than 30 kilometres.

Longest Journey in Previous Year	Total	% Of all Drivers
Did not Drive	18	1.5%
1 - 10	30	2.5%
11 - 50	160	13.2%
51 - 100	100	8.2%
101 - 300	174	14.3%
301 - 500	192	15.8%
> 500	526	43.3%
Not Specified	15	1.2%

**Figure 48 – Longest Journey in Previous Year**  
(for those who hold a licence and have regular access to a car)

Nearly half of the respondents (43.3%, n=526) had, within the last year, made single journeys of more than 500 kilometres. (Either as the driver or co-driver, see Figure 48). Considering the nature of the ACT most of the journeys of more than 100 kilometres would have interstate travel. This equates to 73.4% (n=892) of respondents with a licence travelling interstate in the previous year.

Number of Occupants	Drivers	Percentage of Drivers
1	572	47.1%
2	612	50.4%
3	20	1.6%
4	5	0.4%
Not Specified	6	0.5%

**Figure 49 – Number of Occupants in Car – for most Journeys**  
(for those who hold a licence and have regular access to a car)

Only 1 or 2 occupants are involved in most travel with only a small number of journeys involving 3 or 4 occupants. Figure 49

### 4.3.5 REASONS FOR DRIVING

Reason for Driving	Number of Responses	Percentage of Drivers
Shopping	1 138	93.7%
Visiting Friends/Relatives	953	78.4%
Health Services	926	76.2%
Appointments	805	66.3%
Social Outings	622	51.2%
Transporting Others	617	50.8%
Holidays	576	47.4%
Community Services	401	33.0%
Work	366	30.1%
Sport	342	28.1%

**Figure 50 – Reasons for Driving**

(for those who hold a licence and have regular access to a car)

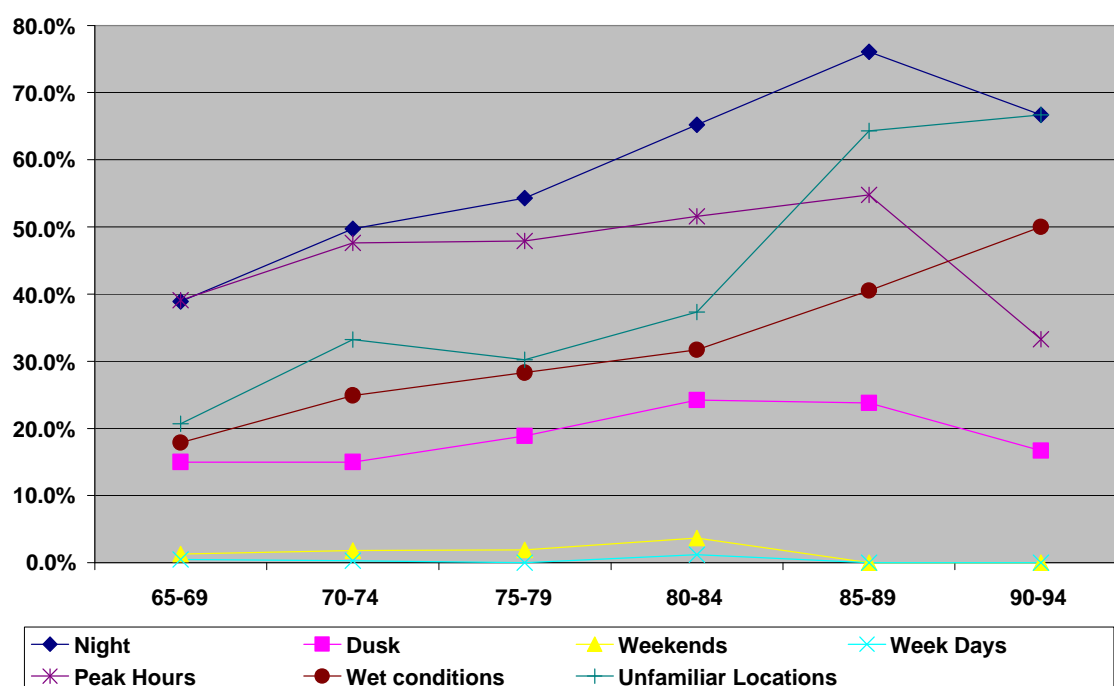
Respondents were asked to indicate the main reasons why they drove. While shopping is the clear leader, visiting friends, health services and appointments with service providers remain important uses of the car. Shopping was a major reason for driving for 93.7% (n=1138) while at the other end of the spectrum, only 28.1% (n=342) elected sport.

### 4.3.6 DRIVING BEHAVIOUR

Condition	Number of Respondents	Percentage of Drivers
Night Time	611	50.3%
Peak Hours	551	45.3%
Unfamiliar locations	373	30.7%
Wet Conditions	303	24.9%
Dusk	214	17.6%
Weekends	23	1.9%
Week days	5	0.4%

**Figure 51 – Conditions where Driving is Avoided**  
(for those who hold a licence and have regular access to a car)

Respondents were asked to indicate circumstances where they regulate their driving to avoid situations where they feel less capable or at greater risk. Figure 51 shows that 50.3% (n=611) of respondents avoid driving at night and a similar number (45.3%, n=551) try to avoid peak hour driving. Other significant conditions avoided are unfamiliar locations and wet conditions.



**Figure 52 – Percentage of Age cohort avoiding Driving Condition**

Older people are clearly changing their driving habits and avoiding difficult driving conditions more, as age increases, see Figure 52. For example, 38% of those aged 65-69 avoid night driving and the proportion steadily increases to 75% of those aged

85-89<sup>64</sup>. It is interesting that this type of behaviour declines with those in their nineties. This may simply reflect that these very old potential drivers tend to avoid all driving.

Concerns	Now		Future	
	No.	% Of Drivers	No.	% Of Drivers
Impatience of other drivers	470	38.7%	203	16.7%
Roundabouts	189	15.6%	116	9.5%
Complex road Markings	181	14.9%	148	12.2%
Lack of signage	168	13.8%	92	7.6%
Changing road rules	110	9.1%	134	11.0%
Right turns across traffic	103	8.5%	101	8.3%
Other	103	8.5%	55	4.5%
Too much signage	81	6.7%	50	4.1%
Fatigue while driving	78	6.4%	147	12.1%
My reaction/thinking time	64	5.3%	297	24.4%
My vision declining	57	4.7%	339	27.9%
My hearing declining	47	3.9%	132	10.9%
The age of my vehicle	40	3.3%	118	9.7%
My physical mobility	38	3.1%	259	21.3%
Impact of medications	16	1.3%	77	6.3%

**Figure 53 – Conditions which Concern Drivers**

Respondents were asked to indicate which conditions concerned them both now and for the future, see Figure 53. Clearly the impatience of other drivers is the number one issue for older drivers with 38.7% (n=470) of respondents indicating concern. This is more than twice as important as the next most significant concern – roundabouts. Interestingly, “roundabouts” (15.6%, n=189) are of greater concern to drivers than “right turns across traffic” (8.5%, n=103) a known significant factor in accidents for older drivers.

An important and perhaps emerging issue is that of “complex road markings” which concerns people both now (14.9%, n=181) and for the future (12.2%, n=148). When combined with the response regarding “too much signage” (6.7%, n=81), this issue of visual information is significant for almost one quarter of drivers and may link to an

<sup>64</sup> Note: the sample size for those aged 90-94 is not sufficient to show statistically valid trends.

awareness of reduced cognitive processing ability. We know that as people age they lose some cognitive processing abilities and report increasingly becoming more confused when faced with complex information processing requirements. When we consider the responses regarding concerns for the future, nearly a quarter (24.4%, n=297) of respondents indicate that reaction time or thinking time is an issue. This suggests that the apparent clarification of driver requirements by increased on-road markings (side-lines, direction arrows, leader lines, bike lanes, and other on-road messages) may be a distraction and confusing for older drivers.

Adjustment	Number indicating change	% Of Drivers
Less night driving	713	58.7%
Avoid peak times	608	50.0%
Keep more distance from other cars	596	49.1%
Less likely to drink alcohol before driving	593	48.8%
Drive slower	498	41.0%
Prefer to make turns at traffic lights	415	34.2%
Take more time turning across traffic	257	21.2%
Keep trips short	233	19.2%
Stay out of the city or town centre	223	18.4%
Avoid higher speed roads	118	9.7%
Avoid driving with children in the car	62	5.1%
Don't drive alone	60	4.9%
Other	53	4.4%
Only drive alone	46	3.8%
Avoid rural roads	45	3.7%
Avoid roundabouts	35	2.9%

**Figure 54 – Adjustments to Driving Habits**

Respondents were asked to indicate what, if any, changes they had made to their driving habits compared to when they were younger ("say 40"). Almost all, 94.3% (n=1146) of respondents with a car and licence indicated some change. Figure 54 lists the changes in order of the number of respondents indicating that change. The key change was to avoid driving at night (58.7%, n=713). The only exception was in the youngest category, 65 to 69 years, where night driving was just edged out by less alcohol. Figure 55 below shows the top 9 changes by age cohort.



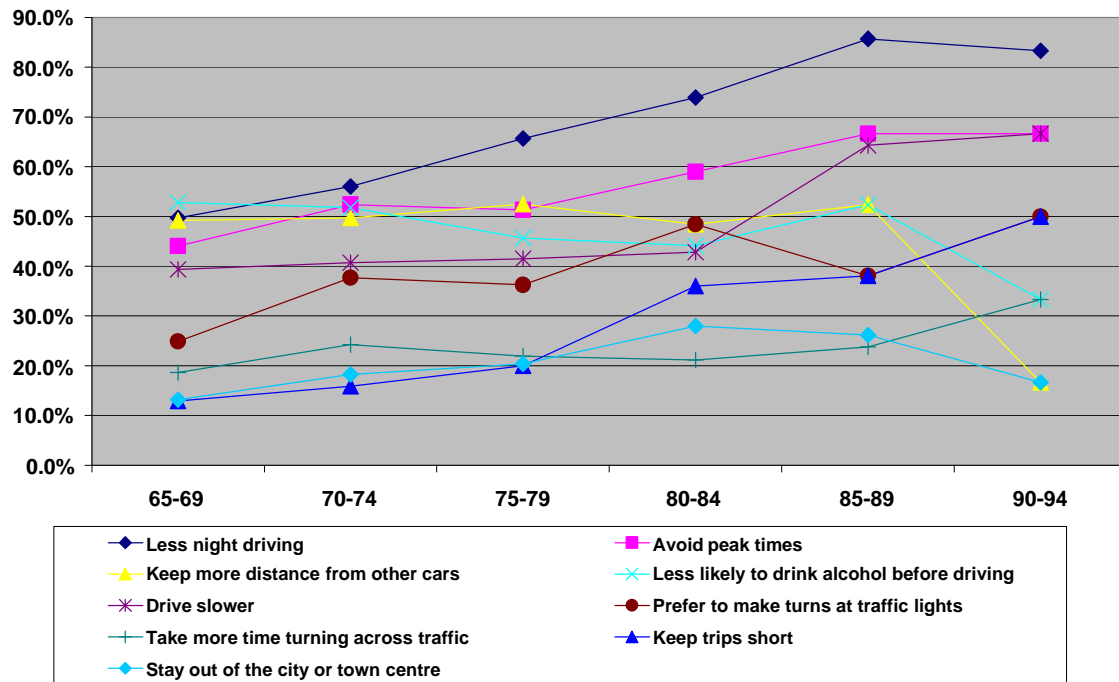


Figure 55 – Adjustments to Driving Habits by Age

Some driving habits are more influenced by the age of the respondent than others. In particular, night driving, avoidance of peak times and length of trips continues to be adjusted as people age. Driving slower seems to change significantly at around age 85 and this may be an important issue for consideration in road safety strategies.

### 4.3.7 ISSUES – DRIVERS AND MOTORCYCLISTS

For those who hold a car or bike licence, 75.6% have been driving for more than 40 years. We might expect that most of these drivers are responsible and the degree to which this population self-adjusts their driving behaviour is a pointer to that.

Nevertheless, there has been significant change in road-rules and driving conditions in the last 40 years and it is unclear how well they have kept up with the changes.

This situation is likely to be exacerbated by the fact that most of these people obtained their licences in other states at a time when variations between the states were significant.

Overall, the ages of vehicles driven is good with 62% having vehicles that are less than 10 years old. Nevertheless, a sizeable proportion (18.1%) have vehicles which are 15 years or older. Most of these vehicles lack the safety features that are significant in saving lives. Given the degree to which frailty is an issue for injury and fatality within this age group, this is a significant concern.

While respondents rated safety features highly and indicated that they were significant in their last purchase, other factors are also high and it remains unclear exactly how aware many are when it comes to their own risk. Responses to an "awareness quiz" (analysed below) suggest that they are not fully aware of their risk.

Over 73% of respondents indicated undertaking journeys of more than 100 kilometres, which suggests interstate journeys. There is a highly mobile sub-group of this population who have the time and resources for interstate holidays and visits to family. Given a recent analysis for the NRMA-ACT Road Safety Trust<sup>65</sup> suggested that ACT residents had at least as many accidents in NSW as in the ACT (i.e. the accident rate of ACT residents may be double the ACT statistics), the 65 and over population may need particular attention. At the very least we should consider information sheets for long journeys in line with those produced by some states (e.g. Western Australia).

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<sup>65</sup> Crashes Involving ACT Vehicles and ACT Controllers in NSW 1999-2003, NRMA-ACT Road Safety Trust, March 2005.

The centrality of the car as the principle means of transport and independence for the 65 and over population is reinforced by respondents' reasons for travel. They are using the car to shop, visit friends and relatives, attend health services and other "daily living" activities. Analysis of transport options (see below) suggests that alternative forms of transport, including public transport, are avoided because they are considered inconvenient and time consuming. Any strategy to encourage people to travel other than as the driver or passenger in their own car is likely to be met with considerable resistance unless viable alternatives are available.

Respondents highlighted a number of self-moderating behavioural changes in relation to their driving including avoidance of night time driving and peak hours. Further, these changes in driving behaviour increase with age. This high level of personal responsibility needs to be acknowledged and worked with as a strategy for bringing about change. Where respondents are aware of their own limitations and risk, they have shown that they will take action. Nevertheless, there are areas of lack of awareness of the risk and this needs to be addressed by careful targeting of information and the provision of alternative strategies.

One area of significant concern is the impatience of other drivers. We know that tailgating and other driving behaviours suggestive of impatience are a key road safety concern within the ACT. It seems that older drivers are very aware of this issue at a personal level. Strategies to tackle this and highlight the implications of aggressive driving, for our ageing population, need to be developed.

Other areas of significant concern include roundabouts and "complex road markings". These areas highlight a difficulty about the provision of engineering solutions to road safety which might be of benefit to the population as a whole but deleterious for a particular group. We know that traversing roundabouts has been a concern for a considerable time and yet we continue to increase the number of small (and therefore sometimes difficult to navigate) roundabouts. With an ageing population we need to assess the impact of such measures on overall road safety for any one group and then relate it to overall road safety. Complex road markings are perhaps a clearer example of this. 15.7% of respondents indicated this as a concern and it is the third most significant area of concern. As we age we tend to lose some of our ability to cognitively process complex information – often reported as a tendency to be only able to concentrate on one item at a time – yet if the amount of on-road

signage increases then we risk confusing older drivers. Engineering solutions need to consider the impact of ageing and age related decline if they are to support rather than hinder road safety.

Maintenance of skills is also an important issue for older drivers. Research suggests that regular driving maintains general skills and, in particular, the ability to manage traffic. When in a couple relationship, the majority of respondents were male and men are more likely to be the driver. Given that the on average, men die 6 years earlier than women, women need to be encouraged to maintain their driving skills in case their partner is incapacitated or dies.

Many survey respondents indicated that their concerns for driving in the future were connected to age related deterioration – fatigue, visual acuity, auditory acuity, mobility decline, mental decline and the impact of medications. While these issues are somewhat inevitable, it is well recognised that age related decline can often be slowed by ongoing mental and physical activity, including social exchange, adequate diet and exercise.

## 4.4 PEDESTRIANS

### 4.4.1 REASONS FOR WALKING

For this section all respondents aged 65 and over and those who did not indicate their age are included (n=1453). The small number (n=7) who were aged less than 65 are excluded from the analysis.

Action as Pedestrian	No.	% Of Respondents
I mostly walk to get to my car	785	54.0%
I walk to the shops sometimes	800	55.1%
I walk to and from some appointments	367	25.3%
I walk to and from the bus stop	431	29.7%
I often walk for pleasure or exercise	957	65.9%
I mainly walk close to home	796	54.8%
I walk as my main mode of transport	49	3.4%
I mainly use off-road pedestrian pathways	514	35.4%

**Figure 56 –Pedestrian Activity**

The answers to the first statement about activities as a pedestrian did not achieve the response expected, see Figure 56. The intention of the statement was to identify those people who used their car and effectively only walked to and from the car wherever it was parked and who did not walk for other activities. Given the large number of responses to this statement, it appears that many respondents have interpreted it to mean that they walk to and from their car as a normal activity. As such the response to this statement is not useful. A similar effect may apply to the other statements which have been struck through. Therefore, they have not been considered. However, this does not detract from responses to the subsequent statements.

Of significance from this question is the response relating to walking for pleasure in which 65.9% (n=957) indicated that they "often walk for pleasure or exercise" and that most people (54.8%, n=796) walk close to home. However, only a small number (3.4%, n=49) rely on walking as their main mode of transport.

### 4.4.2 HOURS OF WALKING

The number of hours spent walking in the last week is indicative of both the fitness and risk exposure of older people as pedestrians.

	65-69	70-74	75-79	80-84	85-89	90-94	95-100	Not Specified	Total
Less than 1 Hour	49	58	59	67	26	9		3	271
1-5 Hours	238	218	187	108	38	9	1	11	810
6-10 Hours	94	73	42	23	9			3	244
11-15 Hours	18	20	13	2				1	54
More than 15 Hours	11	5	5	2				1	24
No Response	9	10	11	9	8	2	1		50
Total	419	384	317	211	81	20	2	19	1453

**Figure 56 – Hours Spent Walking in the last Week**

As can be seen from Figure 56, most people walked between 1 and 5 hours per week (55.7%, n=810); this holds true across the age categories with only a slight decline with age. A minority (18.7%, n=271) do not walk for at least one hour; this increases steadily with age from 11.7% at age 65 to 45% at age 90. For those walking between 6 and 10 hours, there is a gradual decline from 22.4% at age 65 to 11.1% at age 85 and none over 90.

#### 4.4.3 FACTORS INFLUENCING WALKING

Respondents were asked to indicate which of the following might influence them to walk more see Figure 58.

Factors influencing more walking	Number	%
Having facilities close by	373	25.7%
Better footpaths	395	27.2%
Better personal health	521	35.9%
Feeling safer crossing roads	123	8.5%

**Figure 58 – Factors influencing respondents to walk more**

While having facilities close by and better footpaths would influence about 25% of respondents, personal health is a factor for over one-third of respondents (35.9%, n=521).

Age Cohort	Number	% Of Age Cohort
65-69	97	23.2%
70-74	134	34.9%
75-79	121	38.2%
80-84	95	45.0%
85-89	51	63.0%
90-94	11	55.0%
95-100	2	100.0%
Not Specified	10	52.6%

**Figure 59 – Responses of “better health” influencing more walking by Age cohort**

As we might expect, “better health” becomes more significant as people age and indicates the importance of establishing good walking and exercise patterns before age 70 (Figure 59).

#### 4.4.4 CONCERNS AS A PEDESTRIAN

Respondents were asked to indicate their concerns as a pedestrian by rating 15 factors identified from anecdotal complaints by older people. Figures 60 through 74 show the percentage of the age cohort concerned about each of the- factors.

<b>Lack of Centre Refuges</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85-89</b>	<b>90-94</b>	<b>95-100</b>	<b>Unspecified</b>	<b>% Of all</b>
Very Important Concern	4.8%	5.5%	7.3%	6.2%	6.2%	0.0%	50.0%	0.0%	5.7%
Important Concern	16.7%	14.1%	13.9%	12.8%	8.6%	5.0%	0.0%	10.5%	14.1%
Concerns a Little	21.7%	20.6%	16.4%	17.5%	16.0%	15.0%	0.0%	31.6%	19.3%
Not a Concern	27.7%	24.0%	25.9%	19.0%	22.2%	20.0%	0.0%	26.3%	24.6%
No Response	29.1%	35.9%	36.6%	44.5%	46.9%	60.0%	50.0%	31.6%	36.3%

Figure 60 – Level of Concern about Lack of Centre Refuges by Age cohort

<b>Uneven/broken paths</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85-89</b>	<b>90-94</b>	<b>95-100</b>	<b>Unspecified</b>	<b>% Of all</b>
Very Important Concern	29.8%	23.4%	30.0%	23.2%	24.7%	15.0%	0.0%	21.1%	26.6%
Important Concern	24.8%	31.8%	27.8%	31.3%	32.1%	15.0%	50.0%	42.1%	28.8%
Concerns a Little	22.0%	20.3%	18.3%	16.6%	18.5%	20.0%	0.0%	21.1%	19.7%
Not a Concern	8.1%	8.9%	8.5%	7.1%	6.2%	0.0%	0.0%	10.5%	8.1%
No Response	15.3%	15.6%	15.5%	21.8%	18.5%	50.0%	50.0%	5.3%	16.9%

Figure 61 – Level of Concern about Uneven or Broken Paths by Age cohort

<b>Overhanging branches</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85-89</b>	<b>90-94</b>	<b>95-100</b>	<b>Unspecified</b>	<b>% Of all</b>
Very Important Concern	15.5%	14.1%	16.7%	12.3%	11.1%	10.0%	0.0%	5.3%	14.5%
Important Concern	27.0%	22.9%	20.2%	20.4%	14.8%	10.0%	0.0%	36.8%	22.6%
Concerns a Little	23.4%	22.7%	19.2%	13.7%	19.8%	20.0%	50.0%	15.8%	20.6%
Not a Concern	14.8%	15.1%	16.1%	15.2%	21.0%	10.0%	0.0%	21.1%	15.6%
No Response	19.3%	25.3%	27.8%	38.4%	33.3%	50.0%	50.0%	21.1%	26.8%

Figure 62 – Level of Concern about Overhanging Branches by Age cohort



<b>Slippery paths</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85-89</b>	<b>90-94</b>	<b>95-100</b>	<b>Unspecified</b>	<b>% Of all</b>
Very Important Concern	19.6%	18.2%	18.6%	16.6%	14.8%	5.0%	0.0%	21.1%	18.1%
Important Concern	27.9%	23.4%	27.8%	21.8%	23.5%	15.0%	50.0%	31.6%	25.5%
Concerns a Little	20.0%	22.9%	13.2%	17.1%	22.2%	25.0%	0.0%	31.6%	19.2%
Not a Concern	10.7%	9.6%	13.6%	9.5%	8.6%	5.0%	0.0%	5.3%	10.6%
No Response	21.7%	25.8%	26.8%	35.1%	30.9%	50.0%	50.0%	10.5%	26.6%

Figure 63 – Level of Concern about Slippery Paths by Age cohort

<b>Curb heights</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85-89</b>	<b>90-94</b>	<b>95-100</b>	<b>Unspecified</b>	<b>% Of all</b>
Very Important Concern	6.7%	9.1%	5.0%	7.6%	16.0%	5.0%	0.0%	10.5%	7.6%
Important Concern	8.6%	10.2%	9.1%	13.3%	17.3%	0.0%	0.0%	21.1%	10.3%
Concerns a Little	14.1%	15.4%	14.2%	18.0%	19.8%	10.0%	50.0%	15.8%	15.3%
Not a Concern	39.6%	29.2%	31.2%	19.4%	16.0%	30.0%	0.0%	21.1%	30.4%
No Response	31.0%	36.2%	40.4%	41.7%	30.9%	55.0%	50.0%	31.6%	36.3%

Figure 64 – Level of Concern about Curb Heights by Age cohort

<b>Lack of road crossings</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85-89</b>	<b>90-94</b>	<b>95-100</b>	<b>Unspecified</b>	<b>% Of all</b>
Very Important Concern	8.4%	8.6%	9.5%	7.1%	9.9%	5.0%	0.0%	15.8%	8.6%
Important Concern	14.3%	18.5%	16.7%	19.9%	14.8%	5.0%	100.0%	10.5%	16.7%
Concerns a Little	22.2%	20.1%	13.9%	11.4%	19.8%	15.0%	0.0%	10.5%	17.8%
Not a Concern	24.6%	19.3%	23.3%	17.1%	17.3%	25.0%	0.0%	26.3%	21.4%
No Response	30.5%	33.6%	36.6%	44.5%	38.3%	50.0%	0.0%	36.8%	35.4%

Figure 65 – Level of Concern about Lack of Road Crossings by Age cohort

<b>Crossing times at lights</b>	<b>65-69</b>	<b>70-74</b>	<b>75-79</b>	<b>80-84</b>	<b>85-89</b>	<b>90-94</b>	<b>95-100</b>	<b>Unspecified</b>	<b>% Of all</b>
Very Important Concern	8.1%	10.4%	12.0%	9.0%	17.3%	5.0%	50.0%	15.8%	10.3%
Important Concern	19.1%	17.4%	14.8%	15.2%	19.8%	10.0%	0.0%	10.5%	16.9%
Concerns a Little	16.0%	17.4%	12.3%	14.7%	13.6%	0.0%	0.0%	26.3%	15.1%
Not a Concern	27.4%	25.3%	27.1%	17.1%	16.0%	35.0%	0.0%	15.8%	24.6%
No Response	29.4%	29.4%	33.8%	44.1%	33.3%	50.0%	50.0%	31.6%	33.0%

Figure 66 – Level of Concern about Crossing Times at Lights by Age cohort

General busyness of roads	65-69	70-74	75-79	80-84	85-89	90-94	95-100	Unspecified	% Of all
Very Important Concern	6.7%	9.9%	10.4%	7.6%	14.8%	5.0%	0.0%	10.5%	8.9%
Important Concern	19.1%	19.3%	17.0%	20.9%	18.5%	10.0%	50.0%	36.8%	19.1%
Concerns a Little	23.9%	22.4%	17.4%	19.0%	19.8%	5.0%	0.0%	26.3%	20.9%
Not a Concern	21.5%	16.1%	17.7%	10.9%	7.4%	30.0%	0.0%	5.3%	16.8%
No Response	28.9%	32.3%	37.5%	41.7%	39.5%	50.0%	50.0%	21.1%	34.3%

Figure 67 – Level of Concern about General Busyness of Roads by Age cohort

Traffic Speed	65-69	70-74	75-79	80-84	85-89	90-94	95-100	Unspecified	% Of all
Very Important Concern	15.8%	19.8%	18.3%	16.1%	19.8%	10.0%	0.0%	21.1%	17.6%
Important Concern	23.2%	19.8%	21.5%	22.7%	18.5%	25.0%	50.0%	36.8%	21.8%
Concerns a Little	18.9%	19.3%	14.8%	13.7%	18.5%	10.0%	0.0%	21.1%	17.2%
Not a Concern	16.9%	12.5%	12.9%	11.4%	7.4%	20.0%	0.0%	5.3%	13.4%
No Response	25.3%	28.6%	32.5%	36.0%	35.8%	35.0%	50.0%	15.8%	29.9%

Figure 68 – Level of Concern about Traffic Speed by Age cohort

Drivers' attitudes to you	65-69	70-74	75-79	80-84	85-89	90-94	95-100	Unspecified	% Of all
Very Important Concern	12.2%	13.8%	10.7%	8.5%	11.1%	5.0%	0.0%	5.3%	11.5%
Important Concern	22.0%	19.0%	15.5%	11.8%	11.1%	5.0%	50.0%	47.4%	17.8%
Concerns a Little	15.8%	15.9%	11.0%	17.5%	14.8%	10.0%	0.0%	15.8%	14.9%
Not a Concern	23.6%	19.8%	24.6%	17.5%	23.5%	30.0%	0.0%	10.5%	21.8%
No Response	26.5%	31.5%	38.2%	44.5%	39.5%	50.0%	50.0%	21.1%	34.0%

Figure 69 – Level of Concern about Drivers' Attitudes towards them by Age cohort

Cyclists' attitudes to you	65-69	70-74	75-79	80-84	85-89	90-94	95-100	Unspecified	% Of all
Very Important Concern	11.7%	10.7%	8.2%	8.1%	8.6%	5.0%	0.0%	0.0%	9.7%
Important Concern	17.9%	17.2%	13.2%	12.3%	12.3%	0.0%	50.0%	36.8%	15.6%
Concerns a Little	17.7%	15.6%	11.7%	11.8%	9.9%	5.0%	0.0%	15.8%	14.3%
Not a Concern	24.3%	22.7%	28.1%	23.2%	30.9%	35.0%	0.0%	21.1%	25.0%
No Response	28.4%	33.9%	38.8%	44.5%	38.3%	55.0%	50.0%	26.3%	35.4%

Figure 70 – Level of Concern about Cyclists' Attitudes towards them by Age cohort

Overall safety	65-69	70-74	75-79	80-84	85-89	90-94	95-100	Unspecified	% Of all
Very Important Concern	22.0%	21.9%	21.8%	19.0%	22.2%	15.0%	50.0%	26.3%	21.5%
Important Concern	18.4%	24.5%	18.6%	21.3%	25.9%	25.0%	0.0%	21.1%	21.0%
Concerns a Little	18.6%	12.2%	10.4%	12.3%	12.3%	15.0%	0.0%	15.8%	13.8%
Not a Concern	12.9%	9.9%	14.2%	8.1%	6.2%	5.0%	0.0%	10.5%	11.1%
No Response	28.2%	31.5%	35.0%	39.3%	33.3%	40.0%	50.0%	26.3%	32.6%

Figure 71 – Level of Concern about Overall Safety by Age cohort

Being mugged	65-69	70-74	75-79	80-84	85-89	90-94	95-100	Unspecified	% Of all
Very Important Concern	17.2%	19.8%	16.7%	16.1%	18.5%	10.0%	0.0%	15.8%	17.5%
Important Concern	14.1%	14.6%	12.6%	14.7%	11.1%	15.0%	0.0%	21.1%	13.9%
Concerns a Little	24.1%	20.6%	18.3%	13.7%	16.0%	10.0%	50.0%	0.0%	19.5%
Not a Concern	21.2%	16.4%	19.6%	19.0%	19.8%	20.0%	0.0%	31.6%	19.3%
No Response	23.4%	28.6%	32.8%	36.5%	34.6%	45.0%	50.0%	31.6%	29.8%

Figure 72 – Level of Concern about Being Mugged by Age cohort

Inadequate lighting	65-69	70-74	75-79	80-84	85-89	90-94	95-100	Unspecified	% Of all
Very Important Concern	18.9%	22.1%	16.4%	13.3%	23.5%	5.0%	0.0%	26.3%	18.5%
Important Concern	22.9%	18.2%	16.7%	17.5%	12.3%	20.0%	50.0%	26.3%	19.0%
Concerns a Little	17.9%	16.7%	11.4%	15.6%	12.3%	10.0%	0.0%	31.6%	15.6%
Not a Concern	14.6%	13.0%	17.7%	10.0%	14.8%	25.0%	0.0%	0.0%	14.1%
No Response	25.8%	29.9%	37.9%	43.6%	37.0%	40.0%	50.0%	15.8%	32.8%

Figure 73 – Level of Concern about Inadequate Lighting by Age cohort

My health/fitness	65-69	70-74	75-79	80-84	85-89	90-94	95-100	Unspecified	% Of all
Very Important Concern	20.5%	21.9%	28.7%	25.1%	34.6%	30.0%	50.0%	26.3%	24.4%
Important Concern	16.5%	21.9%	19.9%	24.6%	18.5%	20.0%	50.0%	21.1%	20.1%
Concerns a Little	16.2%	11.7%	12.3%	10.9%	14.8%	15.0%	0.0%	10.5%	13.2%
Not a Concern	23.9%	20.3%	14.2%	10.9%	8.6%	5.0%	0.0%	21.1%	17.8%
No Response	22.9%	24.2%	24.9%	28.4%	23.5%	30.0%	0.0%	21.1%	24.6%

Figure 74 – Level of Concern about Personal Health and Fitness by Age cohort

As a general trend throughout these responses, those aged 90 and over were more likely to not respond to this question, perhaps indicating a significant reduction in walking patterns and therefore interest. One consequence of this is that the ' % of all ' percentage is sometimes dragged down by this lack of response when compared to the younger categories. This could suggest that some factors are more significant for those who are more active.

Factor	Important and Very Important Concern	Not at all a concern
Uneven/Broken Paths	55.4%	8.1%
Personal Health/Fitness	44.5%	17.8%
Slippery Paths	43.6%	10.6%
Overall Safety	42.5%	11.1%
Traffic Speed	39.4%	13.4%
Inadequate Lighting	37.5%	14.1%
Overhanging Branches	37.1%	15.6%
Being Mugged	31.4%	19.3%
Drivers' Attitudes to Pedestrian	29.3%	21.8%
General Busyness of Roads	28.0%	16.8%
Crossing Times at Lights	27.2%	24.6%
Lack of Road Crossings	25.3%	21.4%
Cyclist's Attitudes to Pedestrian	25.3%	25.0%
Lack of Centre Refuges	19.8%	24.6%
Curb Heights	17.9%	30.4%

**Figure 75 – Ranking of Factors for those Concerned or Very Concerned versus Not Concerned**

Combining the 'Concerned' and 'Very Concerned' rating may provide a better indication of the overall importance of a factor see Figure 75. Canberra's footpaths are clearly a major issue for pedestrians as 55.4% of respondents expressed concern. Looking at the converse view reinforces this conclusion as only 8.1% indicated that uneven or broken footpaths are not an issue of concern. Slippery paths are also an important factor making issues relating to paths the most significant pedestrian concern for older people.

Personal health and fitness is also an important factor with 44.5% of respondents expressing concern about it.

Quite a few factors concern a significant proportion of the older population. This suggests that the issues raised anecdotally are relevant and warrant addressing.

#### 4.4.5 ISSUES – PEDESTRIANS

The majority of respondents are walking for pleasure and do so close to home. We know that those over 65 make up approximately 25% of all pedestrian fatalities and coincidentally that 25% of all road fatalities in this age group are pedestrians.<sup>66</sup> This creates a conundrum, because encouraging these people to walk more can also place them at risk. At the same time, we know that overall health and fitness can be improved by walking. In turn, this is important in terms of both pedestrian and general road safety.

A concern emerging from this part of the analysis is that one in six (17.4%) of those who indicated that they made more than 10 journeys as the driver in the previous week also indicated that they were “very concerned” about their health and fitness as a pedestrian. More broadly for those making 7 or more weekly journeys as the driver of a car, 38.3% (n=240) indicated that they were “concerned” or “very concerned” about their fitness as a pedestrian. So potentially two in five drivers could have significant fitness concerns when it comes to walking considerable distances.

In response to question 18 in the “Awareness Quiz” (see below), about fitness and road safety, over a third do not identify the link between general fitness and their risk of injury in a road accident.

Over 55% of respondents indicated that broken and/or uneven paths are a significant concern to them as a pedestrian. Given increased fitness impacts on road safety, serious consideration needs to be given to factors influencing the willingness of people to walk as a road safety issue.

Older pedestrian activity and factors affecting it, has not been directly addressed in recent road safety messages. Given the importance of this to overall road safety it is desirable that it be included in future strategies and programs.

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<sup>66</sup> These are not the same pieces of information. One relates to all pedestrian fatalities, the other to all over 65 fatalities, the percentages just happen to be the same.

## 4.5 TRANSPORT OPTIONS

A series of questions were asked to identify factors influencing choices relating to types of transport used.

Transport Option	Number of Respondents	Percentage of Respondents
Driven my Own Vehicle	1250	85.6%
Often been a passenger in own vehicle	534	36.6%
Often been a passenger with family/friends	766	52.5%
Taxis as a full fare passenger	457	31.3%
Taxis using subsidy vouchers	105	7.2%
Wheelchair Accessible Taxi	18	1.2%
ACTION Buses	697	47.7%
Community Transport Services	67	4.6%
Motorised Scooter	17	1.2%
Bicycle	159	10.9%

**Figure 76 – Transport Options Used in the Last Five Years**

Figure 76 shows the usage of transport options within the last five years. The majority (85.6%, n=1250) have driven their own vehicle in the last five years, while 89.1% (n=1300) have often been a passenger either in their own vehicle or with family and friends.

Transport Option	Number of Respondents	Percentage of Respondents
Drive my Own Vehicle	772	52.9%
Be a passenger in own vehicle	438	30.0%
Be a passenger with family/friends	710	48.6%
Taxis as a full fare passenger	284	19.5%
Taxis using subsidy vouchers	157	10.8%
Wheelchair Accessible Taxi (WAT)	14	1.0%
ACTION Buses	692	47.4%
Community Transport Services	107	7.3%
Motorised Scooter	25	1.7%
Bicycle	81	5.5%
Walking as a major means of transport	246	16.8%

**Figure 77 – Transport Options that might be used more in next Five Years**

Figure 77 shows the transport options people think they may make more use of in the next five years. While 85.6% of respondents have driven their own vehicle in the last 5 years, 52.9% believe they will use the car more. Half of all respondents expect to be driving more in the next 5 years.

Interestingly, 16.8% (n=246) of respondents indicate that they expect to walk more as a major means of transport. Yet previously only 49 people had indicated that they currently walk as their main mode of transport and 44.5% of respondents considered their health and fitness as a factor of concern in relation to them being a pedestrian! While these factors are not directly related, the differences appear incongruent. Perhaps this suggests an unrealistic expectation about walking in the future.

Less people consider that they may be a passenger in a vehicle in the future (78.6%) than indicated that they had been in the previous five years (89.1%).

Previous experience of a transport option may be a significant factor in future expectations of usage. Consider that 77.8% (n=542) of those who indicated that they might use ACTION buses more in the next five years had already indicated that they had used ACTION in the previous five years. Only 22% of people who had not used a bus in the past five years suggested that they might use this transport in the future.

Transport Option	Number of Respondents	Percentage of Respondents
Driving my Own Vehicle	170	11.6%
Be a passenger in own vehicle	37	2.5%
Taxis as a full fare passenger	940	64.4%
Taxis using subsidy vouchers	149	10.2%
Wheelchair Accessible Taxi (WAT)	50	3.4%
ACTION Buses	44	3.0%
Community Transport Services	34	2.3%
Motorised Scooter	35	2.4%
Bicycle	32	2.2%

**Figure 78 – Transport Options avoided or minimised due to cost.**

Figure 78 shows the transport options avoided or minimised due to cost. The significant areas are the use of Taxis (64.4%, n= 940) and Taxis with subsidy (10.2%, n=149) along with the motor vehicle (11.6%, n=170). While it has been argued that for many it may be economic to dispose of the private vehicle and substitute taxis, this result indicates very strong resistance to increased dependence on taxis. In addition, the number avoiding use of taxis even for those with a subsidy voucher is significant. This is particularly interesting given that only those meeting strict criteria are entitled to taxi subsidies.

Transport Option	Number of Respondents	Percentage of Respondents
Driving my Own Vehicle	1228	84.1%
Being a passenger in own vehicle	531	36.4%
Being a passenger with family/friends	739	50.6%
Taxis as a full fare passenger	243	16.6%
Taxis using subsidy vouchers	86	5.9%
Wheelchair Accessible Taxi (WAT)	9	0.6%
ACTION Buses	503	34.5%
Community Transport Services	44	3.0%
Motorised Scooter	12	0.8%
Bicycle	93	6.4%
Walking as a means of transport	401	27.5%

**Figure 79 – Transport Options found to be Convenient**

Figure 79 shows the transport options which people find convenient. As we might expect, the motor vehicle is considered the most convenient with 84.1% (n=1228) of respondents indicating this. Other transport options considered convenient include: being a passenger in a vehicle, ACTION Buses and Walking. Surprisingly, taxis scored relatively low, especially when compared to buses.



Transport Option	Number of Respondents	Percentage of Respondents
Driving my Own Vehicle	1214	83.2%
Being a passenger in own vehicle	534	36.6%
Being a passenger with family/friends	655	44.9%
Taxis as a full fare passenger	336	23.0%
Taxis using subsidy vouchers	189	12.9%
Wheelchair Accessible Taxi (WAT)	21	1.4%
ACTION Buses	717	49.1%
Community Transport Services	87	6.0%
Motorised Scooter	56	3.8%
Bicycle	109	7.5%
Walking as a means of transport	461	31.6%

**Figure 80 – Transport Options to maintain independence.**

Figure 80 shows the transport options which would be considered as a means of maintaining independence. Once again, the car is the most important option. ACTION buses are also significant. Other transport options that rated highly include: being a passenger in a vehicle and walking.

Transport Option	Number of Respondents	Percentage of Respondents
Being a passenger in own vehicle	95	6.5%
Being a passenger with family/friends	141	9.7%
Taxis as a full fare passenger	237	16.2%
Taxis using subsidy vouchers	131	9.0%
Wheelchair Accessible Taxi (WAT)	96	6.6%
ACTION Buses	594	40.7%
Community Transport Services	178	12.2%
Motorised Scooter	110	7.5%
Bicycle	154	10.5%
Walking as a means of transport	367	25.1%

**Figure 81 – Transport Options avoided because of time factors**

When asked to indicate which transport options would be avoided because of the time taken to complete a journey (including the time to organise it), ACTION buses rate the most avoided at 40.7%, more significant than walking at 25.1%. Taxis (16.2%) are avoided more than Community Transport options (12.2%). The avoidance of Taxis due to time taken is somewhat perplexing and warrants further investigation.

Transport Option	Number of Respondents	Percentage of Respondents
Driving my Own Vehicle	112	7.7%
Being a passenger in own vehicle	81	5.5%
Being a passenger with family/friends	182	12.5%
Taxis as a full fare passenger	80	5.5%
Taxis using subsidy vouchers	16	1.1%
Wheelchair Accessible Taxi (WAT)	9	0.6%
ACTION Buses	53	3.6%
Community Transport Services	9	0.6%
Motorised Scooter	56	3.8%
Bicycle	128	8.8%
Walking as a means of transport	185	12.7%

**Figure 82 – Transport Options which sometimes feel unsafe**

When asked to indicate which transport options sometimes feel unsafe, walking is the most significant at 12.7%. Interestingly, travelling with family or friends is also considered unsafe (12.5%).

#### 4.5.1 ISSUES – TRANSPORT OPTIONS

Over half (52.9%) of respondents indicated that they expected to use their car more in the next 5 years while nearly the same number (48.6%) expected to travel more frequently as a passenger with family or friends. It was expected that this question would show trends for the future and that these trends would be away from the car, but if the response is to be believed, then existing modes of transport will continue to dominate. This is cause for some concern and warrants further investigation and action.

ACTION buses (47.4%) provide the alternative transport option with the highest expectation of increased usage. However, the expected increase was mainly by those who had already used ACTION. Only a small percentage of people who had not used buses indicated an expected increase in patronage.

Overall, the question about increased usage may not have elicited a true response. It may simply have revealed that people have not, and are not, thinking about future transport options which are significantly different from their current use; particularly if they only thought about the issue in response to the question itself. If this is the case, it is cause for concern as road safety can be significantly increased, particularly for those aged over 75, if they increase their patronage of the safer alternatives such as bus travel and use of family transport.

While people indicate that they avoid Taxis because of cost, this is not the issue for other alternatives. Taxis are not considered to be convenient by most respondents with only 16.6% rating them to be so.

While 34.5% indicate ACTION buses are convenient, almost all of these respondents are existing ACTION users (94.0%). When asked to indicate what options they might avoid due to time taken to complete a journey, ACTION buses also rated highly. 40.7% (n=594) indicated that ACTION takes too long. Interestingly, over half of the people who believe ACTION takes too long (52.6%, n = 313) had not used buses within the last 5 years. Only 23.6% (n=169) of those who indicated that they would use ACTION to maintain independence had not used it in the last 5 years.

These issues about patronage and previous experience of usage are significant because they point to a problem with the use of public transport by this age cohort. From a road safety perspective, buses are generally considered the safer alternative to either driving or being a passenger with others, or even walking. Clearly for ACTION, from a patronage perspective, and the ACT Road Safety office, from a road safety perspective needs to better understand why older people consider use of buses to be so time consuming.

Transport options which respondents sometimes feel unsafe using are "walking as a means of transport" (12.7%, n=185) and "being a passenger with family or friends" (12.5%, n=182). This could equate to over 2,500 people in the ACT aged 65 and over who often feel unsafe while being a passenger with family or friends. Of those who indicated that they felt unsafe with family or friends, 69.8% (n=127), lived in a couple relationship, raising the possibility that they felt unsafe while a passenger with their partner. This is an area that could benefit from further exploration.

Given the high level of response regarding broken and uneven paths, and other issues related to paths, it is not difficult to see why so many respondents do not feel safe while walking.

## 4.6 GENERAL HEALTH ISSUES

### 4.6.1 GENERAL HEALTH

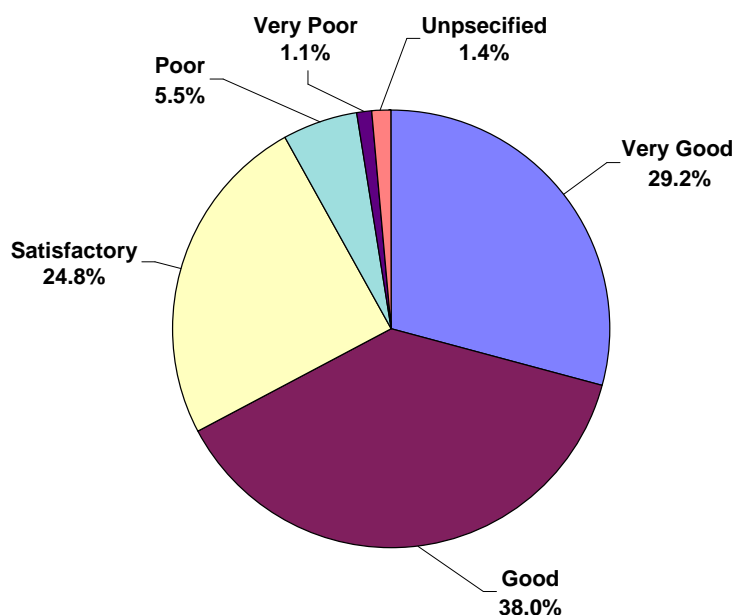


Figure 83 – Overall Health Ratings

Figure 83 shows the overall rating of health reported. Figure 84 shows health rating by age cohort. In general it shows an increase in people “down rating” their health status with age.

	Very Good	Good	Satisfactory	Poor	Very Poor	Unspecified	Total
65-69	153	159	91	12	1	3	419
70-74	119	160	78	15	5	7	384
75-79	86	117	83	21	4	6	317
80-84	46	77	64	17	3	4	211
85-89	8	29	29	12	2	1	81
90-94	3	5	9	2	1		20
95-100			2				2
Total	415	547	356	79	16	21	1434

Figure 84 – Health Rating by Age cohort

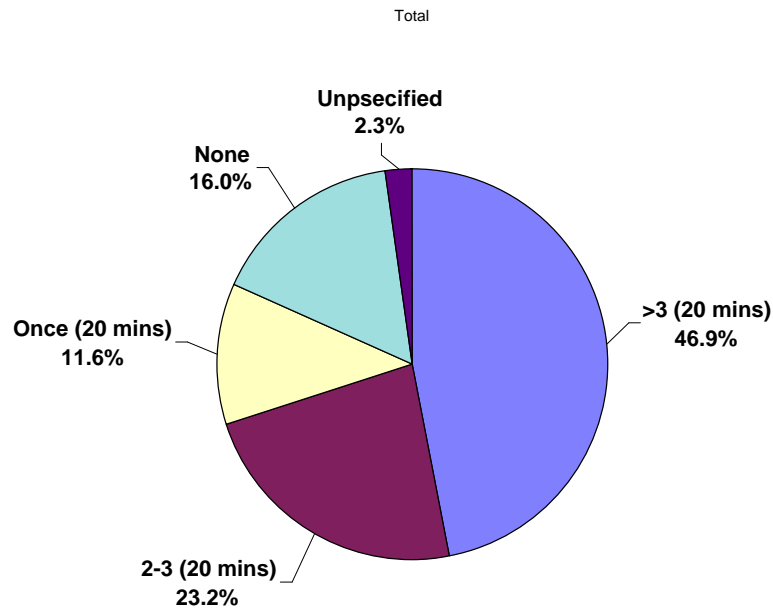


Figure 85 – Quantity of Exercise in last week

70.1% of respondents indicated a satisfactory level of exercise in which deliberate activity was undertaken for 2-3 times each week, with almost half (46.9%) reporting more than 3 exercise periods per week see Figure 84. 16.0% (n=233) did not undertake any exercise in the previous week with a further 11.6% (n=170) only exercising once. Nearly one-third (29.9%) of respondents may not be exercising at even the minimal extent recommended.

#### 4.6.2 MEDICATIONS

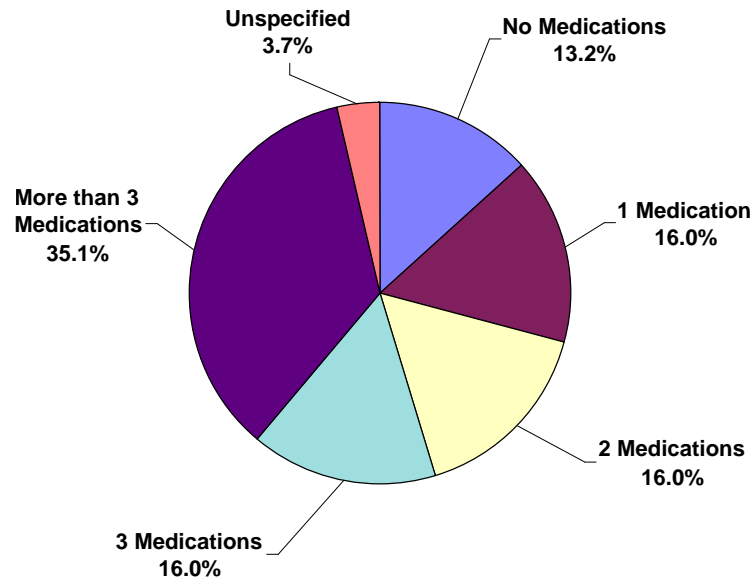
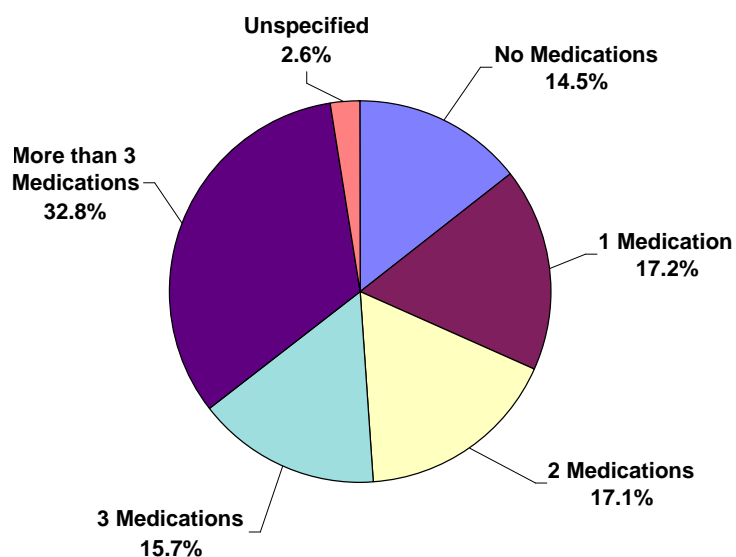


Figure 86 – Number of Medications Being Taken

The majority (83.1%) of respondents were taking some form of medication. As shown in Figure 87, respondents taking more medications tended to report lower health status. Significantly, 51.1% were taking 3 or more medications. This is cause for some concern as it is generally considered difficult to predict the impact of multiple medications on alertness and therefore driving ability. (However, also consider the analysis in figure 89 below.)

	Very Good	Good	Satisfactory	Poor	Very Poor	Unspecified	Grand Total
No Medications	109	63	17	1		3	193
1 Medication	106	92	33	2			233
2 Medications	76	100	49	6	1	2	234
3 Medications	57	98	68	8		3	234
More than 3 Medications	66	177	189	59	12	9	512
Unspecified	12	25	6	4	3	4	54
Grand Total	426	555	362	80	16	21	1460

Figure 87 – Medications Being Taken by Health Rating



**Figure 88 – Respondents with a licence and regular access to a car by number of medications being taken.**

Figure 88 shows the percentage of respondents with a licence and regular access to a car by numbers of medications being taken.

	Accidents	Number with Licence and Access to Motor Vehicle	Percentage who had an accident
No Medications	12	176	6.8%
1 Medication	12	209	5.7%
2 Medications	9	208	4.3%
3 Medications	14	191	7.3%
More than 3 Medications	23	399	5.8%
Unspecified	2	32	6.3%
Total	72	1215	5.9%

**Figure 89 – Reported Accidents versus number of medications**

Figure 89 maps the numbers of medications taken against the report of an accident in the last 12 months. It suggests that increases in medication do not correlate with an increase in accidents. People on two medications had the lowest rate of accidents.



### **4.6.3 ISSUES – GENERAL HEALTH**

Given the importance of health and fitness to resilience, survival and recovery after an accident, the percentage of respondents aged 65 and over who did not exercise to the minimum recommended level is of some concern.

There has been some concern expressed about the impact of medications on driving skills and road safety. The responses to this survey suggest that the number of medications is not a significant variable in relation to motor vehicle accidents with only minor variations between those taking none through multiple medications. Nevertheless, the complexity of the potential interactions of multiple medications and the large numbers taking more than one medication suggests that this should remain a road safety concern, albeit at a lower priority than might otherwise have been indicated.

## 4.7 ACT ROAD SAFETY INITIATIVES

### 4.7.1 AWARENESS OF INITIATIVES

ACT Road Safety Initiative	Number	%
"Coming of Age" older drivers' video	83	5.7%
"Older Drivers' Handbook"	531	36.4%
"Retiring from Driving" handbook	147	10.1%
"Scooter Safe Drivers' Guide"	20	1.4%
"There's Something About Scooters" video	10	0.7%
"LiveDrive" web-site for older drivers	17	1.2%
"LiveDrive" seminar series	8	0.5%
"Overdrive" older drivers' refresher course	125	8.6%
Urban Services road safety web-site	51	3.5%
"Cycle Lane Awareness" advertisements	328	22.5%
Master's Motorcycle course for mature riders	16	1.1%
"Gravel Road Awareness" advertisements	87	6.0%
"Roundabout Awareness" campaign	409	28.0%
"Slip Lane Rules" advertisements	175	12.0%
"Tailgating" campaign	350	24.0%

**Figure 90 – Road Safety Initiative Awareness**

Respondents were asked to indicate if they were aware of road safety initiatives. Figure 90 shows the level of awareness of these initiatives. The general media campaigns such as the "Roundabouts" campaign produced by Urban Services have had a significant impact with penetration of around 25%, and similar advertising campaigns ranging from 12% to 22%.

Materials targeted at specific groups and sent directly to them, appear to increase awareness. Consider, for example, that the most well known publication and most recognised initiative of all is the "Older Drivers Handbook" with 36.4% (n=531) of respondents indicating awareness. This booklet is distributed with licence renewals for those turning 65 years old. Further, 10.1% of respondents were aware of the "Retiring from Driving Booklet". If we examine this awareness by age cohort, we find that some 15.8% of 75 to 79 year olds and 14.7% of 80 to 84 year olds are aware of this booklet. These are the people to which the book is targeted and coincidentally, the booklet is mailed, again with licence renewals, to drivers when they turn 75 years old.

Other publications and measures targeted at older people, but not directly sent to them, appear to have been less successful with only small numbers being aware of the LiveDrive web-site and the Seminar Series.<sup>67</sup> Interestingly, 1.2% of respondents were aware of the LiveDrive web-site while the more ubiquitous Urban Services Road Safety web-site was only known by 3.5% of respondents.

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<sup>67</sup> It should be noted that at the time of the survey, these measures were still relatively new.

#### 4.7.2 USEFULNESS OF APPROACHES

Respondents were asked to indicate their perception of the usefulness of advertising and road safety messages. They were asked two questions, one about how useful they thought the method was for older people in general and one about how useful it was for them personally. They were asked to indicate the following ratings: *Unsure*, *Not Useful*, *Somewhat Useful* or *Significantly Useful*.

Figures 92 to 101 below provide raw data and percentages for each area of responses. However, direct comparisons are problematical due to the variation in responses – not everyone answered each question or part thereof. To allow some useful comparison an index was constructed for each method using the following formula:

$$\text{Rating} = (\text{Unsure Rating} + \text{Not Useful Rating} + \text{Somewhat Useful Rating} + \text{Significantly Useful Rating}) / \text{Number of Respondents to Question Segment}$$

Where:

<i>Unsure Rating</i>	= 0
<i>Not Useful Rating</i>	= (-1)
<i>Somewhat Useful Rating</i>	= 0.5
<i>Significantly Useful Rating</i>	= 1

The results of the index formula is shown in Figure 91 below

Contact Method	In General	Personally
Videos	0.295	-0.044
Seminars	0.196	-0.256
Web-sites	-0.008	-0.293
Newspaper Advertisements	0.450	0.330
Television Advertisements	0.568	0.420
Radio Advertisements	0.335	0.137
Refresher Courses	0.479	0.215
Booklets	0.424	0.269
Magazine Advertisements	0.167	-0.061
Brochures	0.507	0.348

Figure 91 – Usefulness Index

A stark comparison can be seen in the difference between perceptions about usefulness for others versus for oneself. Every methodology is perceived as being more useful for other people than for the respondent.

Newspapers and television advertising are significant vehicles for reaching this population, as are brochures and booklets. Brochures and booklets are considered to be particularly useful when mailed directly. The least useful methods appear to be web-sites, seminars, magazine advertisements and videos. However, there are significant exceptions to this generalisation. Workshop based programs such as Overdrive and Scooter Safe have been highly regarded by participants and sought by the population in general.

### 4.7.3 RAW DATA ANALYSIS OF USEFULNESS

Videos	In General		Personally	
Significantly Useful	220	15.1%	130	8.9%
Somewhat Useful	337	23.1%	271	18.6%
Not Useful	108	7.4%	306	21.0%
Unsure	287	19.7%	219	15.0%
No Response	508	34.8%	534	36.6%

Figure 92 – Perception of Usefulness of Videos

Seminars	In General		Personally	
Significantly Useful	136	9.3%	76	5.2%
Somewhat Useful	346	23.7%	197	13.5%
Not Useful	130	8.9%	405	27.7%
Unsure	299	20.5%	222	15.2%
No Response	549	37.6%	560	38.4%

Figure 93 – Perception of Usefulness of Seminars

Web-sites	In General		Personally	
Significantly Useful	78	5.3%	60	4.1%
Somewhat Useful	244	16.7%	172	11.8%
Not Useful	207	14.2%	402	27.5%
Unsure	328	22.5%	239	16.4%
No Response	603	41.3%	587	40.2%

Figure 94 – Perception of Usefulness of Web-sites

Newspapers Advertisements	In General		Personally	
Significantly Useful	315	21.6%	259	17.7%
Somewhat Useful	555	38.0%	537	36.8%
Not Useful	100	6.8%	173	11.8%
Unsure	125	8.6%	104	7.1%
No Response	365	25.0%	387	26.5%

Figure 95 – Perception of Usefulness of Newspaper Advertisements

<b>Television Advertisements</b>	<b>In General</b>		<b>Personally</b>	
Significantly Useful	464	31.8%	361	24.7%
Somewhat Useful	553	37.9%	542	37.1%
Not Useful	64	4.4%	150	10.3%
Unsure	110	7.5%	95	6.5%
No Response	269	18.4%	312	21.4%

**Figure 96 – Perception of Usefulness of Television Advertisements**

<b>Radio Advertisements</b>	<b>In General</b>		<b>Personally</b>	
Significantly Useful	231	15.8%	185	12.7%
Somewhat Useful	482	33.0%	410	28.1%
Not Useful	133	9.1%	254	17.4%
Unsure	166	11.4%	145	9.9%
No Response	448	30.7%	466	31.9%

**Figure 97 – Perception of Usefulness of Radio Advertisements**

<b>Refresher Courses</b>	<b>In General</b>		<b>Personally</b>	
Significantly Useful	368	25.2%	249	17.1%
Somewhat Useful	356	24.4%	304	20.8%
Not Useful	65	4.5%	195	13.4%
Unsure	216	14.8%	212	14.5%
No Response	455	31.2%	500	34.2%

**Figure 98 – Perception of Usefulness of Refresher Courses**

<b>Booklets (older road users)</b>	<b>In General</b>		<b>Personally</b>	
Significantly Useful	310	21.2%	261	17.9%
Somewhat Useful	433	29.7%	404	27.7%
Not Useful	89	6.1%	189	12.9%
Unsure	199	13.6%	163	11.2%
No Response	429	29.4%	443	30.3%

**Figure 99 – Perception of Usefulness of Booklets**

<b>Magazine Advertisements</b>	<b>In General</b>		<b>Personally</b>	
Significantly Useful	134	9.2%	115	7.9%
Somewhat Useful	407	27.9%	307	21.0%
Not Useful	180	12.3%	325	22.3%
Unsure	221	15.1%	175	12.0%
No Response	518	35.5%	538	36.8%

**Figure 100 – Perception of Usefulness of Magazine Advertisements**

<b>Brochures (road safety facts)</b>	<b>In General</b>		<b>Personally</b>	
Significantly Useful	391	26.8%	317	21.7%
Somewhat Useful	484	33.2%	464	31.8%
Not Useful	77	5.3%	143	9.8%
Unsure	144	9.9%	127	8.7%
No Response	364	24.9%	409	28.0%

**Figure 101 – Perception of Usefulness of Brochures**



#### 4.7.4 ADVERTISING STRATEGIES

Advertising Method		Negative Impact		No Impact		Some Impact		Significant Impact		No Response
The Canberra Times	76	5.2%	156	10.7%	524	35.9%	408	27.9%	296	20.3%
The Chronicle	86	5.9%	273	18.7%	462	31.6%	258	17.7%	381	26.1%
The Australian Senior	95	6.5%	277	19.0%	460	31.5%	242	16.6%	386	26.4%
'50 Something'	155	10.6%	409	28.0%	205	14.0%	95	6.5%	596	40.8%
ABC local radio	91	6.2%	271	18.6%	427	29.2%	242	16.6%	429	29.4%
Commercial radio	168	11.5%	421	28.8%	251	17.2%	74	5.1%	546	37.4%
ABC television	41	2.8%	105	7.2%	615	42.1%	406	27.8%	293	20.1%
Commercial television	97	6.6%	237	16.2%	475	32.5%	230	15.8%	421	28.8%
With licence renewals	57	3.9%	108	7.4%	507	34.7%	462	31.6%	326	22.3%
With registration renewals	61	4.2%	103	7.1%	520	35.6%	432	29.6%	344	23.6%
Posters at shopfronts	143	9.8%	457	31.3%	238	16.3%	62	4.2%	560	38.4%
On bus advertising	144	9.9%	439	30.1%	277	19.0%	61	4.2%	539	36.9%
Web-sites	188	12.9%	491	33.6%	146	10.0%	39	2.7%	596	40.8%
With electricity accounts	110	7.5%	260	17.8%	455	31.2%	180	12.3%	455	31.2%
Letterbox drops	211	14.5%	290	19.9%	364	24.9%	124	8.5%	471	32.3%
At doctors' surgeries	99	6.8%	322	22.1%	449	30.8%	136	9.3%	454	31.1%

Figure 102– Preferred Media for Transmission of Road Safety Messages

Advertising Method	Significant Impact	Some Impact
With licence renewals	1	4
With registration renewals	2	3
The Canberra Times	3	2
ABC television	4	1
The Chronicle	5	6
The Australian Senior	6	7
ABC local radio	7	10
Commercial television	8	5
With electricity accounts	9	8
At doctors' surgeries	10	9
Letterbox drops	11	11
'50 Something'	12	15
Commercial radio	13	13
Posters at shopfronts	14	14
On bus advertising	15	12
Web-sites	16	16

**Figure 103– Preferred Media for Transmission of Road Safety Messages Ranked by Significant Impact (showing some impact ranking)**

The most effective methods of reaching this population are information accompanying licence renewals with 31.6% 'significant impact' and registration renewals with 29.6% 'significant impact'. Other highly effective methods are advertising in the Canberra Times and ABC Television (if this was possible). There is a significant gap in effectiveness between these top 4 communication methods and the next 'rung' down which includes the Chronicle, The Australian Senior and ABC local radio.

Methods that seem to have little or no impact include web-sites, posters at shopfronts, on-bus advertising, commercial radio and "50 Something".

Letterbox drops, web-sites, commercial radio and "50 Something" have a notable negative impact for 10%-15% of respondents.

#### 4.7.5 ISSUES – ROAD SAFETY INITIATIVES

The overall penetration of road safety initiatives and programs is difficult to judge precisely. While some rate relatively low in terms of overall penetration, that does not necessarily indicate poor penetration of the target audience. For example, the "Scooter Safe Drivers Guide" has only reached 20 respondents (1.4% of the sample), but this is nearly double the number of respondents who use a scooter. Likewise, the relatively new "LiveDrive" website has only reached 1.2% (n=17) of respondents, but this compares favourably with the "Urban Services" road safety web-site at 3.5% (n=51) of respondents.

Nevertheless, it must be recognised that responses are indicating that direct-targeted approaches are more effective at increasing awareness. Respondents indicated that material which is mailed directly to the older population have relatively high levels of awareness. Likewise, campaigns that have regular and repeated presentation are also effective at increasing awareness. Also, programs that received significant media coverage such as the "Tailgating campaign" and the "Roundabout Awareness campaign" have high levels of awareness. Interestingly, the "Gravel Road Awareness" campaign seems to have been less successful – perhaps because older people do not see it as being relevant for their driving habits.

A similar response was given for effective means of reaching this group with messages. The top 4 means of getting messages to them were: with licence renewals, with registration renewals (direct targeting), through the Canberra Times and ABC television (high level advertising strategies). Commercial Television seems to have some impact on this group but not as high as might be expected.

There is a clear preference for message delivery and approaches. However, a multi-factorial approach to road safety messages is required in order to meet the varying requirements of particular sub-groups. Where it is desired to reach this population group, direct mail outs with official letters are the only method likely to achieve high levels of penetration. It is perhaps possible to use direct mailing to point to other resources such as web-sites and programs.

## 4.8 ROAD SAFETY AWARENESS

Question	"Correct" Answer	% True	% False	% No Answer
Q1.Those aged 65 and over have more road accidents than those aged between 40 and 65.	False	29.0%	66.5%	4.5%
Q2.If you are aged 65 or over you are more likely to die as a pedestrian than as a passenger.	True	58.3%	36.4%	5.3%
Q3.Those aged 65 and over are more likely to die as a result of a road accident than those aged between 40 and 65.	True	38.5%	56.4%	5.1%
Q4.Older people are more likely to have a problem with alcohol than younger drivers.	False	4.6%	91.9%	3.5%
Q5.Older drivers tend to adjust their driving to allow for the effects of ageing.	True	86.6%	9.6%	3.8%
Q6.The most dangerous manoeuvre for older drivers is making a right hand turn across traffic.	True	56.2%	36.8%	7.0%
Q7.The most difficult manoeuvre for older drivers is traversing roundabouts.	True	41.8%	51.8%	6.4%
Q8.Most people aged 65 and over are likely to be taking one or more medications a day.	True	91.5%	4.9%	3.6%
Q9.If I get a medication from the supermarket, it is unlikely to affect my driving.	False	28.2%	64.6%	7.3%
Q10.The basic road rules have not changed significantly since I got my licence.	False	35.8%	58.3%	6.0%
Q11.Older drivers usually drive at safer speeds.	True	84.7%	11.2%	4.2%

Question	"Correct" Answer	% True	% False	% No Answer
Q12. When walking across (or alongside) a road at night, it is important to wear bright coloured clothing.	True	95.9%	1.6%	2.5%
Q13. Most road accidents occur close to home.	True	68.7%	24.9%	6.4%
Q14. Exercise and fitness will not significantly help my ability and safety as a driver.	False	17.2%	77.7%	5.1%
Q15. Exercise and fitness will not significantly help my ability and safety as a pedestrian.	False	14.6%	81.8%	3.6%
Q16. Safety features of a car are a very important factor in my protection as an older driver or passenger.	True	92.7%	3.6%	3.8%
Q17. My doctor will advise me if I am not fit to drive.	False	80.0%	14.7%	5.3%
Q18. Older people who are physically active are less likely to be injured as a result of a road accident.	True	63.4%	32.2%	4.5%

**Figure 104– Answers to Questions Relating to Road Safety Awareness**

Figure 104 shows the responses to the 18 TRUE-FALSE questions about road safety awareness.

The answer to question 3 (Q3.) shows the lack of awareness among respondents of their increased risk of fatality (and presumably injury) as they age. It seems amazing that so few older people are aware of their increasing vulnerability when in an accident.

While the majority of respondents were aware of the risk of right hand turns across traffic for this age group, a significant 36.8% are not aware of this risk and this is also a cause for concern. Other areas with considerable numbers lacking awareness of risk include: increased risk of fatality as a pedestrian compared with being a vehicle

passenger (36.4%), the impact on driving of supermarket sourced medications (28.2%), changes in the basics of road-rules (35.8%) and the risk of an accident close to home (24.9%).

Surprisingly, 32.2% of respondents did not believe that increasing their level of physical activity would reduce the likelihood of injury in an accident.

The majority (80.0%) believed that their doctor would advise them if they were not fit enough to drive. This is of concern as there is some evidence to suggest that GP's are often reluctant to raise this issue.

The following factors are of concern:

- ◆ About one third (1/3) of respondents think that they have more accidents than their younger cohorts despite the reality that they have less.
- ◆ About one third (1/3) of respondents are not aware of the level of risk they experience as pedestrians.
- ◆ Over half (56%) fail to recognise that they are more likely to die in a road accident than those aged 40-65.
- ◆ About one-third (1/3) are unaware of their risk in making right hand turns across traffic.
- ◆ About one third (1/3) of respondents are unaware of the potential impact of non-prescription medications.
- ◆ Over 17% do not realise that exercise can improve their chances of survival and reduce their injury risk in a road accident.
- ◆ Over 80% expect their doctor (GP) to advise them if they are unsafe to drive.

#### **4.8.1 ISSUES – ROAD SAFETY AWARENESS**

While the overall responses to the “Road Safety Awareness” questions were good, some areas of concern arise. For many older people, the messages related to basic age-related risks and strategies for improving their survival or reducing their level of injury are not getting through. Despite regular and ongoing attempts to raise awareness by road safety authorities and an overall high level of awareness, there remains a sub-group who “just don’t get it”.

Of particular concern is that 80% expect their GP to advise them if they are not fit to drive. Research findings clearly suggest that many GP’s are reluctant to raise this issue for fear of damaging the client-patient relationship.

Overall there is still much work to do if we are to reach older road users with appropriate information and engage them more fully in the process of understanding their risks and protecting themselves from death or injury in road related accidents.

## 4.9 FOCUS GROUP FEEDBACK

Four (4) Focus Groups were convened to examine and provide comment on the data harnessed from the survey. Thirty-four seniors attended these groups with good representation from both genders, a good spread across the target age group (65 years and over) and some representation from people with culturally diverse backgrounds. The number of attendees, dates and locations of the focus groups were:

Group No.	Location	Date	Number of Attendees
1.	Tuggeranong Community Centre	May 4, 2006.	10
2.	Woden Seniors Centre,	May 5, 2006.	8
3.	COTA (Hughes),	May 5, 2006.	10
4.	Northside Community Centre (Ainslie).	May 11, 2006	6

**Figure 105– Focus Group Sessions**

The Focus Group meetings spanned approximately two hours. Each group was orientated to the project via a Power-Point presentation. The next step was to provide them with a summary of the data and invite comment. The questions posed were also provided in the Power-Point presentation. (Appendix D)

The following is a summary of the feedback from the Focus Groups.

### 4.9.1 DEMOGRAPHICS

The groups commented on the gender distribution of survey respondents, noting that where women lived alone they were often quite independent and active. As the “organisers”, women were happy to respond to the survey when they lived alone but also were probably instrumental in encouraging their male partners, where available, to complete the survey. This observation could possibly explain why responses from men living alone were less than expected.

It was also noted that some women who have never driven might have received surveys distributed among the very elderly and therefore they may not have felt the



survey was applicable to them. Thus the number of responses from women might have been lower than anticipated.

Members from two Focus Groups advanced the notion that the low input from people from Asian backgrounds may be wariness around disclosing information to governments or “authorities”. Also, much of the Asian migration was believed to be among younger cohorts so the low representation of Asian cultures in the target group for the survey may accurately reflect the current population mix. Members also noted that older people from culturally diverse backgrounds often had difficulty reading and writing in English.

#### **4.9.2 FRAILITY**

Many group members expressed surprise at their increased risk as “older road users” and the fact that a key risk factor is their physical frailty. Group members indicated they were aware of their increasing frailty, particularly as it relates to injury from falls but they did not realise that frailty was linked to road safety. They said it made intuitive sense but until now they had not been consciously aware of the link. Women in particular seem more aware of their frailty and a rationale advanced from this was that women had been encouraged to undergo bone density testing due to their greater risk of osteoporosis.

A valuable point raised in the discussion of frailty was “How do you use that information without older people losing confidence?” The group facilitators discussed how this information could be provided to people to raise their awareness of issues. Together the groups offered information on how they might minimise their frailty through activity and compensate for it by choosing optimal safety features when buying a vehicle. That is, the goal would be to inform and educate older road users, and offer healthy options, but it is clear that messages must be framed in ways that do not frighten, blame or intimidate older road users. Group participants suggested that messages aimed at educating the general population (rather than targeting older road users) would be more acceptable (and therefore more likely to be heeded).

It was noted by a participant that having an accident prompts reflection on safety issues and this is an opportune time to educate. Timeliness of information can be critical to the effectiveness of the strategy.

Some people were aware of the available safety features of newer vehicles and did take these features into account when buying a car. However, none of the participants were aware of the availability of ANCAP data or how to access it. They expressed significant interest in this information and would like it to be more readily available, (the Internet is not well used to source such information). This data would be particularly useful if available at the point of sale (again a point about the timeliness of obtaining educative material). A positive discussion ensued in Focus Group No. 1 about the notion of a safety star rating system for vehicles.

On a related subject many male group members discussed their preference for "reliable" and "sturdy" older vehicles. The arguments advanced in favour of older vehicles revealed a lack of understanding of the rationale for crumple zones being designed into newer vehicles i.e. how this feature absorbed some of the impact in an accident, thus offering better physical protection for the occupants.

In one group women noted that men often thought this way about older cars being more reliable and sturdier and sometimes left a parting injunction to their wives to hang onto a car after their demise because of these features. Sometimes this left widows driving large and cumbersome vehicles.

While taking on board the value of newer vehicles in terms of advanced safety feature many participants noted the expense of upgrading to a newer vehicle was hard to justify given (a) the small number of kilometres they travel per year and (b) the limited funds available to them.

#### **4.9.3 LONG DISTANCE DRIVING**

It was acknowledged by participants that many older drivers, do undertake long distance trips and that this requires a different set of skills to urban driving, particularly if towing a van. Participants indicated that some brief information on safety and long distance driving would be useful but again queried why it would not be targeted to drivers of all ages. Suggestions included: "*add something to the Older Drivers' Handbook*", "*get it to me with my licence or vehicle renewals*," "*keep it brief*" and "*send it to me more than once and I will read it when it is meaningful to me.*" It was noted at this point that some participants had not received a copy of the *Older*

*Drivers' Handbook* with their licence renewal at age 65. Others were sure they had received it with their licence renewals at 70, not 65 years of age.

One group raised the issue of different road rules in each state and the confusion that created when travelling long distances. The example given was different hours for school zone speeds in NSW. (Any publication on long distance driving should perhaps alert drivers to the fact that differences exist and how to access interstate road rules).

Many group members offered the idea of information being forwarded to them with their licence renewals and their vehicle registration renewals.

Focus Group No.4 raised the issue of bravado noting, " some people adopt the attitude '*I'm tough and can do a long haul*' ". How do you get through to some people on issues such as this?

#### **4.9.4 DRIVING & BEHAVIOUR MODIFICATION**

Introduction of this topic provoked some defensive comments among the Focus Groups. Older road users resent being tagged as bad drivers. They also don't like being identified as old or targeted specifically for road safety education. It is clear they fear being blamed and chastised. They are quick to become defensive and resistive to any information with critical overtones. Group members counterattacked with many comments about the poor behaviour of other road users, both in general and towards them as "oldies".

Among the points raised was how the behavioural adjustments older drivers make are countered by other drivers. One example was that they increase the distance between vehicles to allow for their slower reaction times, only to have other vehicles cut in.

There was strong feedback about the attitude and tone of messages formulated for older road users. Information must be presented in respectful ways, acknowledge their good driving record and lengthy experience. Messages need to be positive and encouraging rather than paternalistic or patronising. Furthermore, focus group participants would like some good press (bear in mind these focus groups were

conducted within a week of the second Sophie Delezio accident in Sydney where in both of her high profile accidents an older driver was "at fault"). They would like to see some road safety messages acknowledging their good driving record. They would also appreciate some education of other road users about their specific needs and for younger road users to be encouraged to respect their needs. Group members stressed the need to keep messages short.

#### 4.9.5 THE ROAD ENVIRONMENT

The Focus Group participants confirmed and expanded on the survey data which showed concern with the increasing complexity of the road environment. They were aware of the increase in road markings and outlined a number of issues that were a problem for them. On-road markings and instructions are difficult to read as:

- (a) they have to read and process the information very quickly;
- (b) information is often obstructed by other vehicles;
- (c) some road markings are faint and hard to read;
- (d) sometimes road markings are inconsistent with road-side signs.

Focus Group No. 4 also remarked on the growing number of advertising signs on and near roads. This creates more complexity and is proving another distraction.

Some group members also flagged that roadside signage was sometimes obstructed, often as a result of tree branches.

Roundabouts present a number of problems for older drivers. Focus group participants raised the issues that drivers of all ages do not understand roundabout rules. They often experience other drivers using roundabouts as opportunities to overtake them (particularly where a one lane road opens into a two lane roundabout and then merges into a one lane road). The Russell (Parkes Way/Kings Avenue) roundabout was particularly noted for being confusing with the recent addition of an extra right turn only lane.

In response to the question "*What needs to be done to improve roundabouts for older people?*" they firstly pointed out that making them safer would be to everyone's benefit. Specifically they would like to have the diameter of roundabouts enlarged,

less visual obstructions (landscaping), and for roundabouts to be single lane on single lane roads.

It was noted that some roundabouts, especially those of a low profile design are hard to see as they blend in with the road surface. It was suggested that some form of outline or reflective surface would help distinguish the edging of roundabouts.

Speeding and speed zones are a source of frustration for drivers. The variations to speed zones are again another layer of information to process when driving and they would like to have greater consistency.

Finally, all groups said that there is a lack of general policing of our roads and so reckless driving, tailgating, non-use of indicators, impatience and intimidation of older road users is not checked. These participants perceive that the 'time poverty' experienced in our current lifestyles creates much of the need to speed and the road rage they observe. They also lament the demise of vehicle inspections and express concern over the dangers presented by unroadworthy vehicles e.g. headlights not working.

#### **4.9.6 MAINTENANCE OF DRIVING SKILLS**

The issue of ensuring the road craft of older drivers is adequate to maintain a licence, and how to ensure or "police" this was raised.

Generally group participants jumped to discussing the notion of retesting from a certain age (again probably as a result of the Delezio case being current as was the debate about testing). Some participants said they would resent such a move but would not oppose it; say every 5 years from age 75. Many were strongly in favour of more stringent testing (i.e. on-road or knowledge testing) from around 75 years of age. (Some suggested all drivers should be tested every 5 years but also recognised the impracticality of that idea.) Some participants felt that some people viewed a licence as a right rather than a privilege.

Most participants were aware that they needed to undergo an "assessment of fitness to drive" by a doctor, from age 75 to renew their licence. They indicated that they would tend to rely on their doctors and adult children to flag the issue of deteriorating

driving skills. They acknowledged that some people are not aware when they are no longer safe to drive e.g. dementia sufferers.

Several focus group members acknowledged the delicate bind faced by GP's when assessing a long-term patient for fitness to drive and that not all doctors were willing to "knock someone back". Others too noted that "fitness to drive" does not equate with adequate on-road skills.

Some groups queried how they could maintain their knowledge and skills. They would like access to the road rules and quizzes (Facilitators indicated that such resources exist, particularly on-line). Some felt refresher courses would be resisted out of fear of losing independence if their license was revoked. One wit thought that older drivers don't care about safety – they are staring death in the face anyway! One Focus Group was more aware of (or had participated in) the OverDrive refresher course. These members indicated that they found the course to be very beneficial and suggested it should be more widely promoted and available. It could be sponsored or subsidised to make it more affordable to older drivers.

#### **4.9.7 PEDESTRIAN ACTIVITY**

A consistent message given at all Focus Group meetings was that both the lack of footpaths and the maintenance of existing footpaths is a deterrent to walking for older people. The lack of footpaths in suburban streets and the landscaping of verges by homeowners, as well as, cars parked on verges and across footpaths often forces pedestrians to walk on the road. Where one side of a street has a footpath, pedestrians often have to make many additional road crossings, thus increasing the risk to their safety. Where paths are available, older pedestrians were concerned about uneven surfaces, slippery surfaces, refuse from trees and overhanging branches. Even small variations on the surface present significant risks to these pedestrians. (The implication is that this environment creates hazards when a person's sight, hearing, mobility, agility and balance are reduced.)

When walking on the road many note that people often don't know to walk facing the traffic, rather than with it.

The reluctance to use multi-purpose pathways was a consistent message of the Focus Groups as they were not well lit, are often isolated (a personal safety issue) and other users, particularly cyclists, were not respectful towards them. Many had been taken by surprise by cyclists as they find them hard to see and hear, and many do not use their bells. It was also noted that the 'right of way' that is accorded to pedestrians by law is not understood or is disregarded by cyclists.

When walking across controlled intersections some participants found the timing of the "walk" cycle was insufficient and the "walk" and "don't walk" indicators are hard to see.

Many group participants indicated they would walk more if a safe and secure environment were available.

Prior to this presentation many group members were unaware of their very high vulnerability as older pedestrians.

#### **4.9.8 PUBLIC TRANSPORT**

Discussion on public transport tends to focus in on ACTION Buses. Many were happy with buses and found them efficient and very economic, especially given the fuel and parking costs associated with using their own vehicles. Often the regular and satisfied bus users recognised they had easy access to a local bus stop and the routes offered were direct and efficient. (These tended to be people who lived in inner areas e.g. Woden, Hughes, and Ainslie.) Most were satisfied with fares, especially with seniors' discounts, but some felt adhering to the "off peak" restrictions was difficult. They said this was unfair, discriminatory and unnecessary, particularly if greater bus use was to be encouraged. At "off peak" times often the frequency of buses was unacceptable thus a bind was created i.e. buses are affordable at off peak times but less services are available.

The input from the Tuggeranong residents differed from that of the other groups. They advanced a range of barriers to their use of buses including frequency, lack of shelters, walking distance to bus stops, circuitous routes, the need to change buses to get to their destination and concern about safety both on, and whilst waiting for, buses.

Most groups indicated that a “shoppers bus” between home and town centres would be of interest to them. Some people had access to such a service via their local community service.

#### **4.9.9 AWARENESS OF SAFETY CAMPAIGNS**

Participants indicated that they are interested in the materials available such as the *Older Drivers' Handbook* and *Retiring from Driving* booklet but their concern was that they were not always aware of what resources are available. However, some were not aware of these resources and indicated they had not received them with their license renewals at 65 and 70.

#### **4.9.10 METHODS FOR DELIVERING ROAD SAFETY INFORMATION**

When it comes to devising safety messages for older people, participants advise that they want to be acknowledged for what they are doing right, they want to be given information, not told what to do, but encouraged and assisted to make informed decisions. Any messages which are directive, paternalistic or patronising are resisted or trigger defensiveness. Information needs to be attractive, brief, have good impact and be offered “little and often” not once and overwhelming.

TV was considered the best mode for delivering messages and by using respected presenters. However, it was recognised this was an expensive way to reach a specific target group. Newspapers were not considered a good vehicle for promoting road safety. Many participants suggested or reiterated earlier suggestions that information accompany license and vehicle registration renewals.

Refresher courses were again noted as an effective way of delivering road safety information.

#### **4.9.11 A FINAL OBSERVATION**

Many of the Focus Group participants enjoyed the interactive sharing of information; they left having learnt some useful information and felt ‘heard’ in terms of their needs and concerns. Engaging participants by creating programs that genuinely promote



and facilitate two-way flows of information was considered optimal. This approach respects their need to be given information and thus be informed. It also empowered them to make their own decisions and self-regulate in order to optimise their road safety.

## **5 NEEDS ANALYSIS AND FUTURE DIRECTIONS**

### **5.1 INTRODUCTION TO THE NEEDS ANALYSIS**

In the broadest sense this project is aiming to answer the question “Are we doing the best possible job to maximise the safety of our older road users in the ACT and, if not, how might we enhance our efforts?”

The first part of this project reported on the efforts and advances in terms of research, programs and materials during the five (5) years 2000-2005. Activity in the ACT was the focus. Some national and interstate materials were also included.

Drawing on that picture, a survey was developed to harness current information on the travel habits, transport issues and the understanding of road safety by older road users in the ACT. The survey also investigated how to best present and disseminate road safety messages to older road users.

The focus groups were conducted to confirm the survey outcomes and harness some qualitative feedback from older road users. Finally, this work, together with input from the reference group and other experts, was used to develop a gap analysis on road safety and to develop the recommendations.

## 5.2 OVERVIEW OF FINDINGS

Generally speaking, efforts to address road safety for older people in the ACT are on a par with other Australian jurisdictions. We provide a good range of handbooks, seminars, workshops, information and websites. In addition, the ACT actively contributes to research on road safety issues.

However, this project found that our road safety materials are lagging behind the findings of recent research. Thus, updating of existing materials is required, particularly as it relates to developing greater understandings of frailty as a key factor in an older person's increased risk as a road user. Aligned to both the frailty issue and overall driving skills, is the need to improve the health and wellbeing of individuals. Finally there is a need to emphasise the value of vehicle safety features in modern cars as a countermeasure to frailty. Some existing materials allude to these issues but;

- (a) The messages are not penetrating the awareness of older road users and are not being translated into attitudinal or behavioural changes.
- (b) The linkages between health and fitness and road safety are not sufficiently emphasised or are "lost" in the volume of material provided.
- (c) The current presentation, promotion and delivery of material is not optimal for the target audience.

Beyond updating educative resources, improved design and maintenance of roads and footpaths is needed. Also, strategies to assist older people to transfer from reliance on driving a private vehicle to utilising public and other alternative transport options need to be developed and be stridently implemented.

Some recommendations regarding changes to the road environment and road safety systems, emerging from other projects and research, do not appear to be adopted by the relevant stakeholders.

The ACT Road Safety Action Plan adopts a framework, which has four major elements: safe road users, safe road environments, safe vehicles and safe systems. We will, in the main, adopt this framework.

Additionally, we will present a model for maintaining the skills of older road users, developing an integrated strategy for communicating road safety messages to this group and actively assisting older people in their transition to retiring from driving.

Finally, the need for a well co-ordinated approach to manage road safety for older people in the ACT is discussed and the need for a formal road safety strategy targeted at older people will be advanced.

## 5.3 SAFE ROAD USERS

The shortcomings identified in this study include:

- a. Older road users do not sufficiently understand that ageing increases their risk as a road user.
  - i. They do not understand the link between mental and physical wellbeing and their safety as road users.
  - ii. They are not sufficiently aware of the impact of frailty on their vulnerability in a road accident.
  - iii. Older women do not understand that they are at increased risk as compared to men due to their natural greater frailty.
- b. Older road users have not made the link between exercise and fitness as a means to help overcome their increased risk.
- c. There is a problem with encouraging greater pedestrian activity as increased exposure as a pedestrian can raise risks of a road accident. However, a key method of increasing fitness is walking and it seems to be the preferred option by most older people. A balance between increased fitness and wellbeing and pedestrian risk is important to reduce vulnerability to an accident.
- d. Design issues relating to footpaths and shared pathways influence both the willingness of older people to exercise by walking and their vulnerability as a pedestrian, especially when they may need to walk on the road.
- e. Couples do not realise the long-term impact of the loss of skills and confidence of women drivers when the male partner doing the majority of the driving.
- f. Older people are concerned that others do not respect and tolerate their attempts to take account of their ageing and adjust their driving habits in line with road safety messages.

### 5.3.1 DISCUSSION

Older people have not related physical and mental wellbeing to road safety. We know that cognitive declines (memory, information processing and decision making) can be slowed by remaining mentally active – use it or lose it. Likewise maintenance of physical fitness (including stamina, aerobic capacity, flexibility, and strength) improves their ability as “Active Road Users”<sup>68</sup> through higher alertness, better information processing and physical responsiveness. A prime example of the failure to link physical wellbeing to road safety is that survey respondents who were concerned about their physical fitness to walk, generally continued to drive regularly and believed that they were fit to do so.

Frailty is the main reason that older people experience traumatic injury and death at rates disproportionate to their numbers in the population. This has only been identified in recent years and been identified as the fundamental road safety risk factor for older people. Both focus group feedback and survey results clearly showed that older road users do not understand this fact. Surprisingly, while they recognise that with ageing they are at greater risk of a fall or general injury, they have not made the link to increased vulnerability in the event of a road accident. Furthermore there is a lack of awareness that from this perspective older women are more vulnerable than their male counterparts.

When raised in focus groups, participants were genuinely surprised that they had not drawn these links and said that in hindsight they made perfect sense.

There is a need for road safety authorities to enhance awareness of this link between physical and mental wellbeing and road safety, especially the frailty factor. Promotion of the strategies to reduce this vulnerability by increasing physical exercise (especially exercise to increase bone and muscle density, strength and flexibility) is also needed.

**Recommendation:** Older people be informed about the frailty and health risks pertaining to road safety and be encouraged to become

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<sup>68</sup> Active road users are people in control of a vehicle and pedestrians, i.e. those making choices, decisions and using skills and judgments during their road use.

**actively involved in improving their health and fitness as a road safety measure.**

The survey confirmed that walking is the second most important transport mode used by older road users. They walk for pleasure, for fitness and health, and as a deliberate mode of transport (i.e. shopping, socialising, appointments). In the main, walking is the preferred method of exercise of older people. There is a tension around the issue of encouraging greater physical fitness among older road users through walking and increasing their injury risk, particularly as pedestrians. Older people are over-represented in pedestrian fatalities in Australia, representing 25% of the pedestrian fatalities while accounting for about 13% of the population<sup>69</sup>. This must be balanced with the benefits of increased fitness and health from exercising. Information directed at older pedestrians about their risk needs to provide a careful balance between encouraging fitness activities and providing strategies for improving safety.

A further complication is that many people are unaware of safe practices as a pedestrian. Most of us learn about pedestrian safety as children – often through school activities. For older people some form of refresher would be beneficial. Other forms of exercise, which would provide greater benefits in terms of increasing muscle mass and bone density, should also be actively encouraged. Health experts increasingly identify the moderate use of weights as a method of increasing bone density and reducing the risk of bone fractures in older people.

**Recommendations: Messages about pedestrian safety be developed and that they include specific information about older pedestrian safety.**

**Older people be encouraged to undertake physical exercise, including walking as a way of increasing health, wellbeing and safety on the road.**

Older people feel intimidated by other users on footpaths and shared pathways. Cyclists are a particular concern. They indicated that few cyclists used a bell when overtaking from behind and that they felt fearful because of this. All focus groups

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<sup>69</sup>Road Fatalities among Older Pedestrians, Monograph 13, ATSB, 2002.

raised this issue. Hearing an approaching bicycle is difficult with full hearing. If a person has reduced hearing (and sight), then the problem is compounded. There is a need to increase the awareness of cyclists to the problem for pedestrians of being overtaken by an apparently silent vehicle "whooshing past". Cyclists need to be encouraged to use a bell when approaching a pedestrian from behind.

Focus Group participants were also concerned about personal security and feared being assaulted. They highlighted inadequate lighting on some footpaths and shared pathways, most road crossings, and in car parks.

**Recommendations:** Cyclists and other users of shared pathways be informed about the needs of older users of these pathways and encouraged to take actions which will minimise the risk of "startling" older users.

Further issues related to pedestrian activity will be examined in the "The Road Environment".

Women are not fully aware of the increased risk to their safety and future mobility as a result of their partners to undertaking the majority of the driving. The survey clearly demonstrated that the male partner undertakes the majority of the driving if they are able to drive. The focus groups confirmed that where men are available, women tend to let them do the majority of the driving and they had not thought about the risk to their driving skills and confidence as a result. Likewise, their male partners have not thought about the long-term ramifications of undertaking the majority of the driving.

There is a need to encourage older women to drive regularly in order to maintain their skills and confidence, regardless of the availability of another driver. There is also a need for men to consider that their partner may need to drive as a result of their illness, disability or death. Encouraging both partners to share driving responsibilities is likely to be a better long-term strategy.

**Recommendation:** The message "women need to maintain their driving skills and confidence by driving regularly", and the reasons why, be conveyed to older couples.



There is a lack of awareness by the general community of the needs of older road users and inadequate respect and tolerance for them as a group. Results from the survey and feedback from focus groups clearly indicates that older people feel intimidated, harassed and concerned about responses of other road users. In particular, they are concerned that their legitimate responses to road safety messages are undermined by the attitudes of others. For example, they realise that their reaction times have slowed – thus they usually travel about 5 km/h below the speed limit. As a result they experience tailgating, inappropriate overtaking, inappropriate interference with gaps, road rage and general intimidation. The survey showed that the impatience of other drivers is the number one current concern of older drivers (38.7%, n=470).

Older drivers need to be encouraged to maintain their safe practices. Further, it is important that the general public be aware that older drivers are, in the main, safe drivers. The general public also needs to understand the messages being targeted at older drivers (e.g. drive slower, keep greater gaps and so on). Respecting these legitimate needs of older drivers has consequences for road safety. Older people believe that there needs to be greater police presence and consequent enforcement of the road rules.

**Recommendations:** Education campaigns be undertaken to inform the public about the good record of older road users and deliver messages about the specific road safety needs of older people.

## 5.4 SAFE ROAD ENVIRONMENT

The shortcomings identified in this study include:

- a. For older people, the road environment is not limited to roads but also includes footpaths, bus shelters and other transport related issues. This integrated approach is not always reflected in road safety strategies and plans.
- b. There is inadequate provision of safe footpaths, which would enhance walking options and help keep people off the roadways and potentially encourage more walking.
- c. The complexity of signage both on-road and by the side of the road is a concern for older people:
  - i. Too much means confusion and an inability to make choices.
  - ii. Too little means an inability to decide where they should be, or where they are going.
- d. Road speed variations and speed signage are a problem. Concerns were raised about the inconsistent rating of roads, variations in speed over a short distance and the increasing number of signs that only appeared on one side of the road. The view of single signs can be blocked by another vehicle.
- e. The design of roundabouts needs to take into account the particular needs of older people. This includes any blockage of vision, issues relating to concrete lips, edge visibility, and tightness of turning circumference.
- f. The increasing complexity of the road environment is a concern. It is at odds with research relating to road design for older road users.

### 5.4.1 DISCUSSION

Historically, the question of safe roads has focused on engineering solutions. More recently, road safety experts have given more recognition to the need to consider wider social needs and concerns. For older people, this shift is most important.

A decision about whether to drive to the local shops is influenced by a range of factors such as health, the weather, the availability of a footpath and its state of repair, street lighting, alternative transport options and costs. While the decision for older people is perhaps not that different to others in the community, the weighting of any particular factor will vary. Focus group participants were keen to emphasise the wholistic aspect of road and road environment safety and the need for integrated approaches.

**Recommendation:** ACT authorities take greater account of the wider ramifications of road and road related design and that an integrative, wholistic approach be taken.

Walking is an important transport mode for older people and they were concerned that the state of footpaths is seen as a road safety issue. The surveys and focus groups highlighted safety concerns with uneven, broken or slippery paths. Over 55% of survey respondents were concerned about uneven and broken paths.

Focus group participants consistently raised the issue of lack of footpaths in many Canberra streets and the consequent need to walk on the road. As a result many limited their walking, including for exercise purposes. The policy on where to locate suburban footpaths, and maintenance regimes for them, should take into account the ageing ACT population.

It is noted that many of these gaps and issues were identified in "The Safe Routes Pilot Project"<sup>70</sup> and the findings of this current study add weight and support to the conclusions and recommendations of this Pilot. This is despite the fact that the Safe Routes Pilot Project was not specifically targeted at road safety but had a focus on

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<sup>70</sup> The Safe Routes Pilot Project prepared for the ACT Planning and Land Management by Bell Planning Associates, 2001

"safe routes". Further, while the "Safe Routes Pilot Project" was limited to North Canberra, findings from this study suggest that issues similar to those identified also apply across Canberra.

In particular we note that:

- ◆ Lighting on footpaths is generally considered to be inadequate and needs to be improved.
- ◆ Street-lights are often concealed by trees and other obstacles.
- ◆ Footpaths are generally inadequate with some streets having no footpaths at all, paths considered to be too narrow, particularly if used by both pedestrians and cyclists and that paths are generally not well maintained, having cracks, ruts and ridges.
- ◆ Traffic is considered to be heavy in most areas, making it difficult to cross roads, except at traffic lights.
- ◆ Shared pathways are considered not to work very well; with a particular concern about cyclists not ringing bells or otherwise indicating their intention to pass pedestrians.
- ◆ Signage is generally lacking including signs indicating directions to facilities, destinations and distances.

**Recommendation:** The NRMA-ACT Road Safety Trust and the relevant sections of the Department of Territory and Municipal Services recognise that, for older people, pedestrian safety is a significant and developing area of concern that needs specific focus.

Department of Territory and Municipal Services officers involved in Road Safety liaise with officers from Planning and Land Management to ensure integration of road safety needs with other planning and development needs related to "Safe Routes".

"Safe Routes" analysis be undertaken throughout Canberra and that road safety aspects be made a key focus of further "Safe Routes" projects.

The following issues identified within the "Safe Routes Project" and by focus group participants for this project, be addressed:

- ◆ Street lighting is adequate and not hindered by trees and other foliage.
- ◆ Footpaths are provided on both sides of the road so as to minimise the need to cross roads.
- ◆ That where paths are shared with cyclists and other users that they be widened to allow cyclists to pass pedestrians safely.
- ◆ Cracks, ruts and uneven paths be repaired and levelled.
- ◆ Signage be included on major pedestrian pathways.
- ◆ Safe road crossings are clearly marked for both pedestrians and vehicles on all major suburban roads.

The timing of crossing signals at major intersections is reviewed to take account of the needs of older pedestrians.

An emerging concern is the complexity of on road signage and the ability of older people (and perhaps others) to read and process the information rapidly enough. Focus groups suggested that they were often confused by this complexity and experienced difficulty in ensuring that they understood which lane they should be in, or what the signage indicated. This seems to be a particular problem when confronted with such complex information as right-turn, straight-through and left-turn lanes in combination with cycle lanes, in combination with traffic lights, merging traffic and cross traffic flows. Unfamiliar environments exacerbate this problem.

A few focus group participants believed that signs are not always consistently located. As a result they find it difficult to scan and sort through multiple visual cues for the information they need.

An issue of particular concern to focus group participants was the variation of speed limits in relatively short distances on the same road. In particular, changes from 60 km/h to 70 km/h to 80 km/h and back again make it difficult to drive consistently.

Further, the complexity of traffic flows can mean signs and road markings are blocked by other traffic and focusing on the traffic can make it "easy" to miss a change in speed limit. A large number of participants believed that there should be greater consistency and less possible variations in speed limits.

Older people need the design rules and engineering solutions to better match their physical and cognitive abilities. Roundabouts are a prime example. Focus groups highlighted small roundabouts in suburban streets as being difficult for them to manoeuvre. Visibility is also a concern reinforced by plantings, both in and around roundabouts, limiting visibility of other vehicles. Small roundabouts with wide concrete lips (designed to allow large vehicles to traverse the intersection) are difficult to see, especially at night and in the wet.

With an ageing population, these issues can only become more significant. At the same time, changes to reduce complexity for older people may also be an advantage for younger road users.

Austroads<sup>71</sup> in 2004 stated "*Road design plays a major role in road safety and is likely to contribute to the driving difficulties of the elderly. It appears that the complexity of the road environment can place increasing demands on an older driver's capabilities, whilst normal ageing diminishes the capacity to cope with such situations*". This report further outlines and confirms many of the needs recognised in this study.

**Recommendation:** The ACT fully adopt the measures and suggestions for change presented in the Road Environment and Design for Older Drivers: Stage II<sup>72</sup> publication and ensure that the training opportunities offered by Austroads in relation to this are fully utilised by ACT authorities.

A particular suggestion by Austroads which needs urgent attention in the ACT is that the kerbs of all roundabouts be painted white and have reflective beading to enable ready

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<sup>71</sup> Road Environment and Design for Older Drivers: Stage II, Austroads, 2004

<sup>72</sup> Road Environment and Design for Older Drivers: Stage II, Austroads, 2004

visual identification regardless of lighting or weather conditions.

## **5.5 SAFE VEHICLES**

The shortcomings identified in this study include:

- a. Older people are generally aware of vehicle safety features but they have not connected this to themselves personally in terms of frailty and risk.
- b. A small but significant cohort of older people believes that old "strong" cars which do not crumple in an accident are safer. They do not understand the transference of impact forces into their bodies in the event of an accident. Nor do they fully understand the value of ABS brakes, collapsible steering wheels and other safety features.



### 5.5.1 DISCUSSION

There is a significant lack of awareness by older people of the importance of vehicle safety features and their particular importance to them. They are not aware of why they should update or purchase cars with optimum safety features.

There is a widely held belief within the older population that older cars are better because they do not crumple in an accident. Further these same people have not considered the importance of newer vehicle safety features such as air-bags, ABS brakes, collapsible steering wheels and impact absorption.

Crash data, discussed in Part 1 of this project, indicates that older drivers drive older vehicles and this is one feature which differentiates them from other drivers who are involved in accidents.

Of the 36 focus group participants only one was aware of the availability of ANCAP information and knew how to access it. While most indicated that they would make use of the information if they could access it. They also indicated that they tended not to look for this sort of information via the web.

Education of older people concerning vehicle safety features and the particular benefits of these features is required. This information needs to be available in a readily accessible form.

More broadly, it would be useful to ensure that ANCAP ratings and information about what it means is available at the point of sale for motor vehicles. The mandatory provision of ANCAP information by dealers before vehicles are sold could give considerable benefit, not only to older people but also to the ACT broader community. Manufacturers and dealers provide a wealth of information about vehicle performance and safety features – especially for new car sales. It would be a small additional burden if they were required to provide prospective purchasers with an outline of the vehicles ANCAP rating, some information about what an ANCAP rating signifies and reference to sources for further information.

**Recommendation:** A fact sheet about car safety features and the importance to older people be developed and sent to all registered owners aged 65 years and older with cars older than 10 years.

Older driver educational materials and programs include information about vehicle safety features and ANCAP data and the importance to older road users.

The ACT mandate the provision, at the point of sale, of information about ANCAP data and vehicle crashworthiness ratings to all prospective purchasers for non-private vehicle sales.

## 5.6 SAFE SYSTEMS

The shortcomings identified in this study include:

- a. When considering older people, there is a need for a wholistic road safety approach. The issue is not just drivers and passengers, but also includes: pedestrian safety, personal fitness, and alternative transport strategies.
- b. Older people are not a single homogenous group and as such, road safety messages need to take account of these differences in order to be effective and to reach the right people at the right time.
- c. Traffic authorities need to consider alternatives to the private motor vehicle as a road safety initiative. Providers of such services need to view the provision of services to older people as an essential service (as opposed to one of a number of alternatives). To this end:
  - i. ACTION as the key public transport provider has a key role to play in this issue.
  - ii. There are significant opportunities for ACTION to design timetables and systems to encourage and maximise use of buses by older people.
  - iii. Strategic early marketing could increase potential ACTION usage both as an adjunct to driving, and when driving is no longer an option.
  - iv. This should be seen as a community service obligation.
- d. Initiatives are required to encourage and enable drivers to retire from driving at appropriate times. This includes:
  - i. Information about continuing to drive when no longer safe.
  - ii. Provision of adequate alternatives.
  - iii. Developing familiarity with use of alternative forms of travel.
  - iv. Assistance in identifying and utilising alternatives at the point at which they retire from driving.

- e. General Practitioner's remain the major instigators of retiring from driving and older people believe that their health professionals, particularly their GP will tell them when it is time to retire from driving.
  - i. GP's would benefit from greater ongoing support and encouragement in this difficult role.
  - ii. GP's are limited in their ability to identify skill deficits and attitudinal issues with older drivers.
  - iii. GP's need to be able to refer drivers to skills refresher programs to enable the individual to confirm or revise their on-road skills.
- f. The existing educative methods lack important and specific information and approaches to road safety. The messages provided to older people about road safety are only minimally meeting their purpose.
  - i. There is a need to develop a coherent strategically designed process to maximise the impact.
  - ii. Issues that need to be addressed include:
    - 1. Content
    - 2. Presentation
    - 3. Tone
    - 4. Volume of material
    - 5. Mode of delivery
    - 6. Repetition
    - 7. Timing of delivery
    - 8. Consistency.
- g. The ACT Office of Road Safety needs a broader brief to enable it to provide integration of policy and operational systems.
- h. The ACT needs a Strategic Plan for Road Safety for Older People.

### 5.6.1 DISCUSSION

#### Integration

Road safety in the ACT generally focuses on the specific needs of road users such as drivers, motorcyclists, pedestrians and cyclists. For older people, the linkage between road safety strategies and their total transport needs is crucial. Older people need a road safety strategy to encompass a range of transport options and take into account the potential impacts of transferring from one option to another. For example, encouraging people to walk more increases their risk as a pedestrian. Against this, walking improves fitness and health and reduces fragility resulting in both potential improvements in driving ability and greater resilience in the event of a road trauma. We need to create safe environments for them to walk for pleasure, exercise and as a means of getting around.

Likewise, public transport, which is widely recognised as the safest form of road use, appears to be under-utilised by older people in the ACT. Encouraging more people to use public transport could enhance the willingness of older people to consider retiring from driving at the appropriate time. However, this needs to be weighed against the increased pedestrian activity. Any wholistic strategy to address road safety must take into account barriers, real or perceived, to increased utilisation of both public transport and other alternatives to the private motor vehicle.

The statistics show that those aged 65 and over are a vulnerable set of road users. As a result there is a tendency to treat them as a single, homogenous group – “older road users”. However, in reality, they are not an homogenous group and the survey results clearly demonstrate a range of variations in: health and wellbeing, travel patterns, mobility needs, income, education, gender, and level of frailty. For example, those aged around 65 are likely to be more mobile, undertaking more long distance trips and are healthier; whereas those around 80 are more likely to undertake short local trips, less frequently and to have increased levels of frailty and health issues.

We need to recognise the sub-sets and target messages appropriately. These include: younger seniors compared to older seniors, gender, healthy and fit compared to health compromised, those open and engaged in their own road safety compared to those who are closed and defensive. We also need to recognise that

there can be considerable overlap between groups, particularly in relation to age (chronological age is not a good determinant of functional ability).

Road safety messages should be designed with possible sub-sets in mind and the methods of presentation and engagement adapted to each of them.

Viewing road safety, in its broadest sense, requires that technical, administrative, social and health policy implications are considered in a wholistic and strategic manner. While we note that there has been some attempt to do so in recent years, this approach has not been consistently applied and the current attempts are not sufficiently broad. We believe that an Older Persons Road Safety Strategic Plan needs to be developed to ensure that the wider policy considerations are fully recognised and incorporated into a "whole of government" approach. This is needed to ensure that an appropriate focus is developed to manage the road safety implications of the ageing ACT population.

This plan needs to meet older persons road safety needs covering maintenance of driving, riding and pedestrian skills; transition to alternative transport options and the facilitation of the process of retiring from driving. Older road users need to actively participate in their own road safety decisions. This approach entitled "Keeping Seniors Mobile" is outlined below.

**Recommendation:** A wholistic, integrative approach to road safety and transport needs for older people in the ACT be applied in the ACT Road Safety Strategy and the ACT Road Safety Action Plans.

**Recommendation:** Road safety strategies are developed with the specific needs of older road user sub-sets in mind. In particular: women, men, young older road users, old older road users, people from culturally diverse backgrounds, IT literate/non IT literate be recognised as sub-groups.

**Recommendation:** The ACT develop a specific Older Persons Road Safety Strategic Plan in order to develop and guide road safety planning and ensure incorporation of the broad mobility needs of this group.

**Recommendation:** The "Keeping Seniors Mobile"<sup>73</sup> model be adopted and its approach incorporated into the proposed Older Drivers Strategic Plan and the ACT Road Safety Action Plans.

### **Transport Options**

Older people need a range of transport options. While for most (more than 80% of survey respondents), the private motor vehicle is the preferred and most used means of transport, not all older people can or do rely on this as their sole form of transport. Further, the need to ultimately retire from driving means that alternatives must be available. Ideally, there will be a transition from driving to alternative transport in order to ensure that independence; social connections and psychological wellbeing are maintained.

While walking, travelling with friends, taxis, community service transport, and bicycle use are possible alternatives to driving; the principle alternative for any reasonable distance is public buses. However, older people perceive that public transport has generally not been designed to accommodate their specific needs.

On the other hand, regular users of ACTION buses were satisfied with their service. The survey showed that those who had used a bus were more likely to consider its use in the future and most focus group participants indicated that buses were affordable and increasingly attractive, given mounting fuel and parking costs.

Nevertheless, considerable numbers had little or no experience of using ACTION and these people were unlikely to consider it. They were more likely to indicate the time taken for a journey as a disincentive for using buses. Unless people were familiar with their local routes, they were uncertain about how to determine suitable routes for any one journey, how to access a timetable or how to pay fares.

The survey suggests that older people in the ACT are not as IT literate as some studies have suggested and are less likely than their younger counterparts to access

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<sup>73</sup> (See section 5.7, pages 205-208)

information via the web. ACTION's reliance on the web for route and timetable information is a disincentive for potential older users.

While it is noted that the ACTION fleet is upgrading to provide for disability access, focus group participants noted that they believed this conversion has been very slow and that it is not always clear whether a particular route will be serviced by an accessible bus. Some participants were not aware of the existence of these buses.

Very few survey respondents nominated alternatives to ACTION, such as community transport offered by local community service agencies, as a regular form of transport (1%). It is understood that these services often run with very limited resources and usage is prioritised to assist those most in need. Taxis, where full fare was paid were used regularly by only 1.1% of respondents and when subsidised by 2%.

There is an opportunity for ACTION to develop a fuller understanding of the needs of older patrons and, in addressing these needs, improve their patronage and provide older people with a safe and effective transport alternative.

Strategic early marketing of ACTION services could increase potential usage by older people and assist them to appropriately consider this alternative to driving. Provision of public transport options for older people who may no longer drive is a community service obligation.

**Recommendation:** ACTION Buses undertake a review of the needs of both existing and potential older patrons to identify barriers to their greater utilisation of public transport.

**Recommendation:** The ACT investigate expanding alternatives to public transport such as community buses and "on-demand" transport options for older people and consider the benefits of such alternatives in the context of road safety, reduction in road trauma and its associated costs.



## **Retiring from Driving**

Most people will come to a point in their lives when it is no longer safe to continue driving. The precise timing of this depends on the individual's circumstances but it is also influenced by the availability of alternatives.

The message about when and how to retire from driving is not clearly understood by older road users. Focus group participants indicated that they recognised that the day would come when they could no longer drive, but beyond the advice of their GP, or someone in authority telling them they could no longer drive, they were unable to articulate a process by which they could identify this need. Survey respondents overwhelmingly expected their GP to tell them if they could no longer drive (80%).

Only 10% of survey respondents were aware of the "Retiring from Driving Handbook". It is apparent that much of the information in the RFD Handbook is not reaching older drivers. In particular, older drivers are lacking information to support them to successfully retire from driving.

Older people need to be informed and advised about options for retiring from driving. Self-assessment of driving skills and abilities needs to be encouraged, as does a graduated transition to other transport options. Participation in skills refresher programs should also be promoted (see below). The availability of evaluative assessments of on-road skills is also required.

It is important to identify when people should retire from driving. Too early and we place an undue burden on the older people themselves, limit their social involvement and constrain healthy living. Too late and we risk injury or death for either themselves or others.

Older drivers will generally self-regulate and surrender their licence at an appropriate time. However, there is a gap in identifying those older drivers who should be required to have their licence revoked because they are unable or unwilling to self-identify. Much of the burden for identifying these drivers falls on GP's. While most GP's will meet their obligations to ensure that patients are fit to drive, they are not able to identify whether a person has the actual on-road skills necessary to continue

to drive. Further, a GP has an ongoing professional relationship with an older person and it is difficult to advise a patient that they must surrender their licence.

GP's need a range of resources to assist them in this process, including the ability to refer patients to driver refresher programs, information about alternatives to driving, and the ability to request assistance for a person who is at risk of social isolation unless that person develops confidence in using alternatives to driving.

**Recommendation:** The ACT road safety authorities, in consultation with the ACT Division of General Practice, develop specific resources to assist GP's in identifying "at risk" older drivers. These resources should include information about locally available driver refresher programs, alternatives to driving and resources to assist individuals where cancellation of a licence risks increased social isolation.

At the time when an older person surrenders their licence, either voluntarily or otherwise, there is a need for assistance in terms of a personal evaluation of needs and potential alternatives to driving. One option for providing this would be for the ACT community to employ a system of "transport advisors" who would visit the older person; look at their individual needs and advise on the range and availability of alternatives. This could include identifying bus routes and times, advising about the mechanics of catching a bus, identifying community transport options and advising people about how to utilise them and to help identify other appropriate options. This service could also advise on long distance travel options and subsidy entitlements.

**Recommendation:** The ACT trial "transport advisors" who contact or visit older drivers who surrender their licence, request advice or are referred for help to make the transition from driving.

There is a recognised difficulty in reaching some older drivers who do not seem to accept the need for self-regulation and adjustment in their driving or road use. Similarly, some are unwilling to maintaining or update their road skills. There is wide recognition that human systems rely largely on the responsibility and self-regulation of individuals to exercise judgment and safety. Those systems also recognise that

not everyone has the capacity or willingness to self-regulate and thus a system of vigilance, enforcement and penalty is constructed.

Any "policing" or "testing" of older drivers is likely to be at significant financial cost, either to the government or the individuals, and unfairly onerous to the many responsible citizens who are the bulk of our older road users. The "recalcitrant few" need to be recognised as a small sub-group for which no reasonable solution has yet been identified.

### **Education (Design, Delivery and Content)**

Older people are not sufficiently aware of their risks as road users and the nature of their own vulnerability. There is a need to increase educational measures and this need will increase as the ACT population ages. Further, we must ensure that the messages are appropriately targeted and delivered in ways that will maximise penetration.

The gap in the current delivery of messages to older people is a complex, multi-layered issue and needs to be viewed from a number of aspects. These include:

- a) *Presentation:* Focus groups clearly identified that they wanted material to be visually attractive, enhanced with diagrams and pictures, readable (including no jargon and in large print) and "modern" in design or "feel".
- b) *Tone:* Focus group participants were very clear that negative messages, messages which "singled them out", and those which could be construed as judgmental or hectoring are off-putting. Positive messages, delivered with a light and humorous touch are desired. Material which is informative and supportive rather than directive or patronising will engage them and optimise their road safety.
- c) *Volume* Most people are aware of the *Older Drivers' Handbook* and *Retiring from Driving Booklet* and appreciate the

material. The volume of information is considered overwhelming and people admitted it was often not read thoroughly. Focus Group participants suggested that brief material, sent more regularly, was likely to be read and absorbed.

- d) *Mode of Delivery:* Survey respondents and focus group participants confirmed that posting material with their licence renewals was the most effective way of disseminating information. Focus group participants indicated that they would also be open to having material accompany registration renewals. Survey data suggests that appropriate television advertisements can also be an effective means of getting messages across. Likewise, there is evidence that advertising within the Canberra Times can be effective.
- e) *Repetition:* Focus group participants indicated that sending material once was insufficient and that information needs to be offered more than once to reinforce messages and to maximise the match between when they need, or are "ripe" for specific information.
- f) *Timing:* Focus groups confirmed that the timing of delivery of information is crucial to its uptake. While they valued the booklets forwarded with licence renewals they recognised that their interest in and need for information about road safety is piqued when their personal involvement occurs such as when they have an accident. Delivery of information needs to capitalise on this feedback e.g. at the point of buying a new car, at the time of an accident, when they are surrendering their licence.
- g) *Administration and regularity:* Feedback from Focus Groups suggests that the *Older*

*Drivers' Handbook* and *Retiring from Driving* booklet are not always distributed with licence renewals (at 65 and 70 years of age respectively). This and any further information prepared with the intent of being distributed with licence and registration renewals needs to be monitored to ensure ongoing delivery.

Existing educative materials and refresher programs are not providing information consistent with current knowledge and research. The *Older Drivers' Handbook*, for example, has useful general information about medications and driving, fatigue, vision, health and other related issues. However, the messages get buried in the verbosity of the content. Further, many of the messages are not concrete or accompanied by suggestions and strategies. More recent information about vehicle safety features is missing.

The *Retiring from Driving* handbook has a similar approach and the same weakness regarding targeting and simplicity of the message. More recent information sources such as the *LiveDrive* website, focus on statistical information and changes to road use and begin to address personal actions that people can take, but these messages are only available to a limited group.

The message from older people is that they want the information to be presented in a format that does not require extensive reading, that clearly states the facts and the important messages in short digestible portions. Further, the material needs to be presented in non-threatening ways that while not avoiding the issue of ageing is neither patronising nor critical.

**Recommendations:** The *Older Driver's Handbook* and the *Retiring from Driving* booklet are revised, streamlined and collapsed into a single booklet. That the revised booklet use professional copywriters and graphic designers to ensure a contemporary design is achieved and that the revised booklet be distributed at age 65 and again at age 70.

A comprehensive series of short fact sheets be developed and distributed with licence and registration renewals.

The Fact Sheets be forwarded directly to older road users on multiple occasions in order to optimise the match between the need for information and the timing of its delivery.

Opportunities to broaden distribution of these fact sheets, such as via Shopfronts, the Seniors Information Line, the Motor Vehicle Registry, post accident follow-up and post-licence surrender be explored.

That a range of modern contemporary marketing strategies including TV commercials, print advertising and the previously mentioned "Fact Sheets" be developed and utilised.

Existing on-line information services, such as *LiveDrive*, be maintained and updated and that these resources be more widely publicised to encourage broader use.

All educative materials be reviewed and updated on a regular basis. (Not less than bi-annually.)

We need to provide accurate, appropriate and appealing resources if we expect older people to become active participants in their own road safety, and to update and maintain their skills. The evaluation of the last *OverDrive* program noted that it needed to be offered on an ongoing and regular basis to facilitate and optimise participation. It has now been over 3 years since this highly successful program was run. Despite the time since it was last run, 8.6% of survey respondents indicated that they were aware of it. COTA has had repeated requests to re-run the program. Focus group participants indicated a desire to undertake some form of skills refresher program provided that it was "not too expensive". They also noted that no existing programs were available.

**Recommendations:** Options be developed to assist older drivers to update their driving skills and to improve confidence. This should include:

- ◆ driver refresher programs such as *Overdrive*;

- ◆ on-road refresher programs via driving schools who are aware of the issues of older drivers;
- ◆ on-line older driver rules and skills refresher programs such as those currently provided for younger drivers.

**Driving refresher programs should be funded and offered on an on-going basis and that options be offered at low-cost so as to capture those older drivers on limited incomes.**

It is unclear whether some culturally and linguistically diverse groups are receiving road safety messages. Data on ACT population distributions suggests that about 20-25%<sup>74</sup> of survey and focus group participants should come from non-English speaking backgrounds. In reality only 11.7% (N=171) of survey respondents indicated that English was not their first language. More specifically, we expected participation by some representatives from Asian and Baltic countries and our own indigenous people. Whilst numerous survey respondents indicated that they were from non-English speaking backgrounds, the majority were of Western European (Dutch, Italian, German and in lesser numbers Greeks, Finnish, Russian, Polish and Spanish). People with similar backgrounds participated in the focus groups. Whilst there has been some theorising as to why this is so (difficulties with written English, fear of representatives of government) the reality is that we do not sufficiently understand the barriers to participation by these people, nor do we understand their specific needs regarding road safety.

**Recommendation: Further research is undertaken in conjunction with key migrant associations to determine their road safety needs and identify appropriate responses.**

Nearly 50% of survey respondents made journeys of 500 kilometres or more as the driver (or co-driver) of a motor vehicle. Further, responses suggest that perhaps as many as three quarters of respondents make interstate car journeys each year. Despite this, there is a lack of information targeted at these drivers regarding driving conditions and issues related to interstate journeys. Focus group participants indicated that general information about travelling interstate would be valued but

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<sup>74</sup> Demographic Profile of Older People in Canberra, Department of Urban Services, 1999 (Check Title)

indicated that it should be targeted at all road users, not just older drivers. We believe that there is value in preparing information about driving interstate and for it to be provided for all drivers in the ACT. This material could be targeted at people who may make significant interstate trips such as recent retirees. The issues of fatigue, towing, metropolitan driving and interstate road rule variations should be covered.

**Recommendation:** Information about interstate and long distance driving be prepared and that recent retirees and drivers aged 60-75 be targeted for provision of this information.

### Research

Specific, concrete, measurable data on the economic cost/benefits of road safety expenditure is not available. Whilst there is data available to demonstrate that money spent on the Black Spot campaign is more than that recouped by the reduction in the economic costs of road accidents at these sites, there is a lack of corresponding evidence that driver education strategies produce a favourable cost/benefit outcome.

Factors other than the financial cost/benefit can and do compel governments and communities to pursue campaigns which improve our health, safety and wellbeing. However, financial cost/benefit is a clearly needed as a base on which to add realistic arguments concerning other factors that support road safety expenditure.

A related issue is one of cost shifting. What is the cost of supporting say driver refresher courses versus dangerous driving, or premature retiring from driving and the costs which accumulate as a result of social isolation, depression or decreased independent living? What is the cost of providing more and better-maintained footpaths versus the costs of injuries or alternatively the costs of poor health and fitness in discouraging walking but inadvertently putting these physically unfit people behind the wheel of a car? In short, how much does spending on road safety reduce spending in other areas? And what value do we put on the intangibles like quality of life? These factors are hard to determine yet an understanding of them can clarify the value of any one activity.



**Recommendation:** The NRMA-ACT Road Safety Trust Initiate a project to identify and quantify the benefits of various types of road safety initiatives.

## 5.7 KEEPING SENIORS MOBILE

### 5.7.1 RATIONALE

The key task of this project is to keep seniors mobile whilst maximising both their safety and consequently that of the wider ACT community. Driving a private motor vehicle remains the number one preference of older people for achieving this. Emerging from this project, are many "micro" improvements and ideas for supporting and promoting road safety. Additionally there is a compelling need to develop an integrated and staged approach to supporting drivers to maintain their ability and skills to enable them to continue driving. This is needed from 65 years of age. In addition, support to begin the process of retiring from driving is required. At the point of retiring from driving the goal is to keep older people mobile and therefore actively engaged in order to maintain their overall mental, physical and social wellbeing.

Initiatives need to integrate key outcomes from this and other related projects. The characteristics include:

1. Treating older drivers with dignity and respect.
2. Offering information and education rather than issuing directives or enforcement measures.
3. Supporting informed self-assessment and decision-making concerning retire from driving.
4. Facilitating the transition to alternatives that support their ongoing mobility needs.

Currently in the ACT the approach is to educate older drivers and riders via the *Older Driver's Handbook*, the *Retiring from Driving* booklet, provision of "refresher" courses (OverDrive, Seminar Series, MASTERS Stay Upright) and web based safety information (LiveDrive).

From age 75 licences are renewed annually, with the licensee required to produce a fitness to drive assessment signed off by a Health Professional. Given this assessment is positive, the licensee undergoes an eye test (a requirement with all licence renewals) and finalises the renewal process. Should the licensee not be cleared as "fit" to drive then their licence is cancelled. No further intervention is offered unless the licensee pursues an appeal.

### 5.7.2 THE MODEL

It is a key recommendation of this project that the current process of communication about licensing be revised in order to better support older drivers and those retiring from driving. It is proposed that:

The *Older Drivers' Handbook* and *Retiring from Driving* booklet be combined, updated, streamlined and provided in a more contemporary form. This booklet should be distributed with licence renewals at age 65 and 70. "Fact Sheets" addressing the key issues covered in the new booklet be developed and distributed with vehicle registration renewals for people aged 65 and over. Each renewal should include a random selection of two or three fact sheets (little and often).

A personalised letter acknowledging the safety record of older drivers and riders be included with the medical assessment certificate in the licence renewals at age 75, The letter should also note the need to adjust driving habits and to ensure that skills are up to date. This letter should also outline driver refresher courses and strongly encourage them to participate.

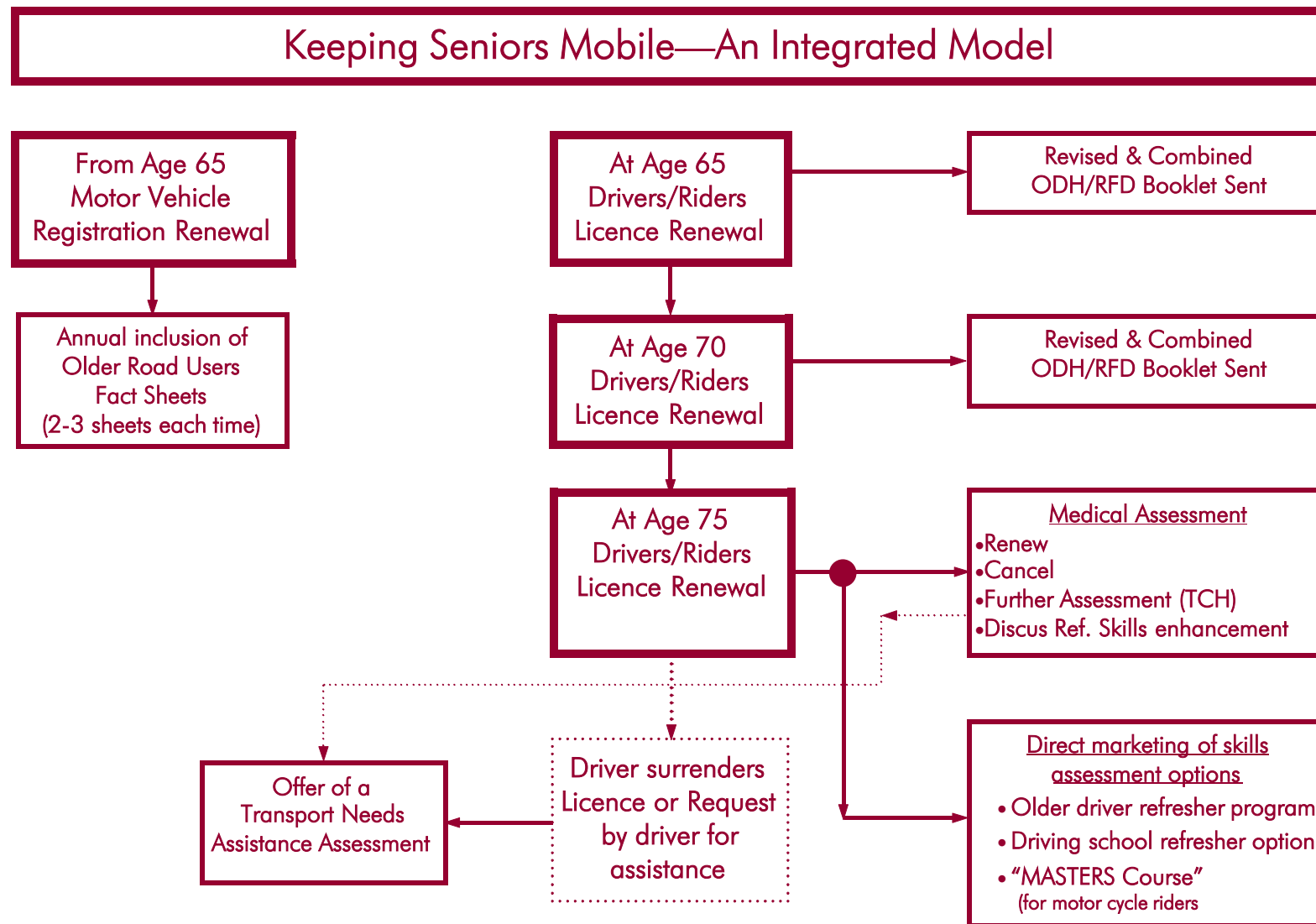
Resources and education targeted to GP's may further help to encourage the uptake of refresher training. These efforts can also expand the GP's options when assessing fitness to drive. When a GP is confident their patient is "fit to drive" but has a concern about their attitudes to driving or has doubts about a person's on-road skills they could offer refresher training.

This approach addresses the twin needs of assessing a person's fitness to drive and their skills and knowledge. However, the model stops short of mandating this second component – i.e. assessing their skills and knowledge.

When a licence is cancelled, the individual should receive a letter offering them a personalised "transport needs assessment" and provide details of the local assessor body.

A transport assessor offers a home visit to discuss transport needs with the person and to explain the alternatives available, concessions, protocols for using public

transport, accessing routes and timetable information etc. And if needed, to facilitate practice runs on buses. Demonstrations of telephone or Internet bookings of taxis, community transport and coaches could also be provided.



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[www.aihw.gov.au](http://www.aihw.gov.au)  
[www.ambulance.net.au](http://www.ambulance.net.au)  
[www.aami.com.au](http://www.aami.com.au)  
[www.anu.edu.au/ageing](http://www.anu.edu.au/ageing)  
[www.aro.gov.au](http://www.aro.gov.au)  
[www.atsb.gov.au](http://www.atsb.gov.au)  
[www.austroads.com.au](http://www.austroads.com.au)  
[www.cars.flinders.edu.au](http://www.cars.flinders.edu.au)  
[www.cota.org.au](http://www.cota.org.au)  
[www.healthact.gov.au](http://www.healthact.gov.au)  
[www.howsafeisyourcar.com.au](http://www.howsafeisyourcar.com.au)  
[www.inia.org.mt](http://www.inia.org.mt)  
[www.minerals.csiro.au/safety/drugs](http://www.minerals.csiro.au/safety/drugs)  
[www.monash.edu.au/muarc](http://www.monash.edu.au/muarc)  
[www.mynrma.com.au](http://www.mynrma.com.au)  
[www.nisu.flinders.edu.au/sanra](http://www.nisu.flinders.edu.au/sanra)  
[www.qut.edu.au](http://www.qut.edu.au)  
[www.racv.com.au](http://www.racv.com.au)  
[www.rta.nsw.gov.au](http://www.rta.nsw.gov.au)  
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[www.tac.com.au](http://www.tac.com.au)  
[www.transport.sa.gov.au](http://www.transport.sa.gov.au)  
[www.urbanservices.act.gov.au](http://www.urbanservices.act.gov.au)  
[www.un.org](http://www.un.org)  
[www.ymca.canberra.org.au](http://www.ymca.canberra.org.au)  
[www.uq.edu.au](http://www.uq.edu.au)  
[www.vicroads.vic.gov.au](http://www.vicroads.vic.gov.au)



## Appendix A

### List of Recommended Action Items

The following specific tasks have been identified from the Analysis and Recommendations. They are provided as a guide for some possible projects and programs and are not necessarily in the order of the original recommendations.

- 1 Develop an ACT specific Older Persons Road Safety Strategic Plan. (Ensuring a broad integrated framework.)
- 2 Redraft, condense, modernise, enhance presentation, and combine the *Older Drivers Handbook* and *Retiring from Driving Handbook* into a single publication.
- 3 Develop and deliver messages about fitness and health linkages to road safety, as well as, incorporate messages into existing programs and resources such as "OverDrive", "LiveDrive", and "Seminar Series".
- 4 Develop media campaigns on:
  - ◆ pedestrian safety;
  - ◆ keeping fit and active for self protection;
  - ◆ maintaining driving skills – main target is older women;
  - ◆ respect and tolerance of Older People's needs. Includes needs as drivers, pedestrians and other road use;
  - ◆ shared path rules and requirements – with particular emphasis on requirements of cyclists towards pedestrians;
  - ◆ changes in older people which can affect road safety (including frailty);
  - ◆ information about ANCAP data and vehicle safety measures with note about the particular importance to older people.
- 5 Revise and deliver an updated OverDrive course – note the need for subsidised places for low-income people. Establish a regular program of courses – possibly 3 – 4 per year.
- 6 Develop older driver refresher programs through driving schools.
- 7 Review crossing times at traffic lights in areas of potential high risk for older people.

- 8 Investigate footpath improvements as per recommendations in the analysis section. Develop an easy mechanism for people to report problems and for authorities to respond in a timely manner.
- 9 Review on-road and side-of-road signage and simplify consistent with ATSB recommendations.
- 10 Review road speed limits to reduce "short distance" speed changes.
- 11 Develop an action plan for meeting the needs of and marketing to older people as a strategic approach to reducing use of private motor vehicles by the oldest Canberrans.
- 12 Review resources available to and required by General Practitioners and if necessary develop a package of material for GP's including a list of transport resources for older people.
- 13 Pilot an older person's Transport Advisor program.
- 14 Develop a marketing strategy and design for delivery of "Fact Sheets" and other information for older road users.
- 15 Develop an on-line "Older Person's" road rule and information quiz.
- 16 Update material on the LiveDrive web-site to better reflect the required information.
- 17 Investigate the needs of people whose English language skills may be limited or whose cultural experiences may influence reception of road safety messages.
- 18 Develop information about long distance and interstate driving for Canberrans with specific information about travelling to Sydney and the South Coast. Include information about differences in road rules between the ACT and NSW.
- 19 Develop an ACT specific cost/benefit analysis for road safety as a means to ensure maximum direction of limited funds and to allow for transfer of savings between programs.
- 20 Identify a methodology to establish a "clearing house" or coordination function for road safety activities and research in (or funded by) the ACT.

## Appendix B

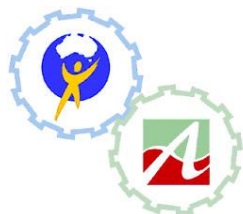
### List of Recommended Fact Sheets

The following list of "Fact Sheet" titles is offered as a means to begin the process of their development. The suggested titles and coverage are indicative only and the list is in no way meant to be comprehensive. The fact sheets are additional to and may repeat information to be included in the proposed combined *Older Drivers and Retiring from Driving Handbook*.

- ◆ Retiring From Driving.
- ◆ Driving Interstate (Sydney and the South Coast).
- ◆ Long Distance Driving for Canberrans.
- ◆ Towing a Caravan.
- ◆ Fatigue and Road Safety.
- ◆ Keeping up-to-date with Road Rules.
- ◆ Using Buses and Other Alternatives to Driving.
- ◆ Being a Safe Pedestrian.
- ◆ Impacts of Ageing on Road Safety.
- ◆ Choosing a Safe Car for Retirees and Older People.
- ◆ Keeping Fit Improves Road Safety!
- ◆ Medications and Road Safety.
- ◆ Safe Use of Motorised Scooters.
- ◆ Tips for Older Motorcyclists.
- ◆ Tips for Older Drivers.
- ◆ Being a Considerate Cyclist.
- ◆ Living Longer – Road Safety for the Over 70's.
- ◆ Being a Good Passenger – How to Back Seat Drive Safely.
- ◆ Statistical Snapshot for Canberra Drivers.
- ◆ Canberra Drivers' Worst Nightmares (covering tailgating and other poor driving skills of the Canberra community).
- ◆ Useful Resources for Road Users.

Appendix C  
Consultative Process Survey Instrument

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COTA  
NATIONAL  
SENIORS

# Older Persons' Road Safety Needs Analysis Survey

Dear Seniors Card Member,

COTA National Seniors in the ACT has a long history of participation in road safety issues relating to older Canberrans. Over the years our organisation has provided input to research and policymaking as well as developing and delivering programs and publications. In this project we are working with the NRMA—ACT Road Safety Trust to examine the current road safety issues for older Canberrans in order to:

- ◆ assess the impact of initiatives to date,
- ◆ identify what information people need and in what format,
- ◆ build an up-to-date picture of transport and safety needs, and
- ◆ develop future directions for initiatives.

In order to harness public input to these goals we have developed this survey. This is an ambitious undertaking; we hope to obtain input from at least 2000 Canberrans aged 65 years and older. This is where you come in. Your time and effort to complete this survey will make a valuable contribution to our understanding of the needs of older citizens and plan and deliver effective road safety initiatives into the future.

We appreciate your time is valuable and the size of this survey may, at first sight, seem daunting. However, the survey has been arranged so that most answers can be provided by ticking the appropriate boxes. We have piloted this survey and refined it from the feedback we received so as to ensure it takes minimal time to complete. Our pilot survey took most participants between 20 and 35 minutes to complete.

We want to assure you that your responses are anonymous and only consolidated data will be published, i.e. no individual information will be scrutinised. The information used to contact you for help with this survey comes from the ACT Senior's card database. This information remains secure and only COTA National Seniors employees who administer the Seniors Card scheme have access to it.

If you have any questions regarding this survey please feel free to contact us on (02) 6282 3777, or via email [contact@cota-act.org.au](mailto:contact@cota-act.org.au).

**We ask that you complete and return the survey in the enclosed REPLY PAID envelope by Monday the 11th of July, 2005.**

We thank you in anticipation of your input,

Paul Flint

Executive Director.

## DEMOGRAPHIC INFORMATION

*This information lets us compare different groups of people and understand whether personal characteristics such as gender, location or income range has any influence on the answers provided.*

1. **Your Gender is:** Female ☐ 1  
Male ☐ 2

2. **Your Year of Birth is:**

3. **Your 'Living Arrangements' are:**

- alone ..... ☐ 1  
with a partner/spouse ..... ☐ 2  
with others (eg, relatives, friends etc)..... ☐ 3  
in a Retirement Village ..... ☐ 4

4. **Your Postcode is:**

5. **Are you of Aboriginal or  
Torres Strait Islander descent?**

Yes ☐ No ☐

6. **Is English your first language?**

Yes ☐ No ☐

↓  
If no, what is your first language?

\_\_\_\_\_

*While we appreciate that some people are uncomfortable specifying their income, there seems to be a link between income and transport issues. We would like to try and better understand this link and therefore request that you tick the box which matches the combined income of yourself and your partner (where applicable).*

7. **Your Income Range is?**

- Less than \$15,000 pa..... ☐ 1  
\$15,001—\$25,000 pa ..... ☐ 2  
\$25,001—\$35,000 pa ..... ☐ 3  
\$35,001—\$50,000 pa ..... ☐ 4  
\$50,001—\$75,000 pa ..... ☐ 5  
More than \$75,000 pa ..... ☐ 6

## TRANSPORT EXPERIENCE

Understanding whether respondents have used a service (and, if so, how often) lets us determine how experience of a service influences responses to other questions. It will also give us some measure of how many older people use each of the listed services.

### 8. Which of the following transport services do you use?

(Tick any that apply and choose the closest option)

	Never	Irregularly	Once per Month	Once per Week	Three or more per Week
Own Vehicle (as Driver/Rider)....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Own Vehicle (as Passenger) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family and friends .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taxis (full fare paid) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taxis (subsidy scheme) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ACTION Buses .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community Service transport ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motorised Scooter .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## DRIVERS AND MOTORCYCLISTS

Your answers to this section will help give us an overview of how older people in Canberra utilise motor vehicles. If you ride a motorcycle, please answer questions referring to driving as if they referred to riding.

### 9. How many years have you held a driver's licence?

- Never held a licence..... ☐ 1  
 Less than 10 Years..... ☐ 2  
 11-20 years..... ☐ 3  
 21-30 years..... ☐ 4  
 31-40 years..... ☐ 5  
 41-50 years..... ☐ 6  
 More than 50 Years..... ☐ 7

### 10. Do you currently have a driver's licence?

Yes ☐ No ☐

### 11. Do you currently have a licence to ride a motorcycle?

Yes ☐ No ☐

If you answered "No" to both questions 10 and 11, please go to question 23

### 12. Do you have regular access to a car?

Yes ☐ No ☐

#### 12a. Is it an automatic or manual?

Auto ☐ Manual ☐

#### 12b. What type of car is it?

- Large (e.g. Commodore, Falcon) ..... ☐ 1  
 Medium (e.g. Camry, Magna) ..... ☐ 2  
 Small (e.g. Barina, Hyundai) ..... ☐ 3  
 Four Wheel Drive ..... ☐ 4  
 Other (e.g. Van, utility) ..... ☐ 5

#### 12c. What is its year of Manufacture?

### 13. When you last purchased a car how influential were the following factors?

(Please answer for every line)

	Not important	Of some importance	Important	Very Important
Cost .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Size .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fuel efficiency .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Performance .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety features .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Colour & aesthetics.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recommendations .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 14. Have you had any accidents in the last 12 months?

Yes ☐ No ☐

If yes, please specify how many

(Include all regardless of significance of damage or fault)

### 15. In the last week, how many times have you driven for any reason?

- 0 (Did not drive)..... ☐ 1  
 1—2 ..... ☐ 2  
 3—4 ..... ☐ 3  
 5—6 ..... ☐ 4  
 7—8 ..... ☐ 5  
 9—10 ..... ☐ 6  
 More than 10 ..... ☐ 7

**16. In the last week, approximately how many kilometres have you driven if you totalled all journeys?**

- 0 Kms (Did not drive)..... ☐ 1  
 1 — 10 Kms..... ☐ 2  
 11 — 50 Kms..... ☐ 3  
 51 — 100 Kms..... ☐ 4  
 101 — 300 Kms..... ☐ 5  
 301 — 500 Kms..... ☐ 6  
 More than 500 Kms..... ☐ 7

**17. In the last year, what was the longest journey you made as a driver (or co-driver)?**

- 0 Kms (Did not drive)..... ☐ 1  
 1 — 10 Kms..... ☐ 2  
 11 — 50 Kms..... ☐ 3  
 51 — 100 Kms..... ☐ 4  
 101 — 300 Kms..... ☐ 5  
 301 — 500 Kms..... ☐ 6  
 More than 500 Kms..... ☐ 7

**18. When you drive, how many people are usually in the car? (Please select only one option—the one that occurs most often)**

- 1 (just me)..... ☐ 1  
 2..... ☐ 2  
 3..... ☐ 3  
 4 or more..... ☐ 4

**19. What are the main reasons that you drive?**  
 (Please tick any that apply)

- Shopping, including banking or post office .... ☐ 1  
 Appointments (e.g. hairdresser, accountant) . ☐ 2  
 Transporting others (e.g. spouse, friends)..... ☐ 3  
 Access to community services (e.g. library)... ☐ 4  
 Access to health services (e.g. doctor)..... ☐ 5  
 Visits to friends or family..... ☐ 6  
 Social outings (e.g. movies, bingo, theatre).... ☐ 7  
 Sport (e.g. bowls, golf) ..... ☐ 8  
 Holidays..... ☐ 9  
 Work (paid or voluntary)..... ☐ 10

**20. Are there any conditions where you try to avoid driving?**  
 (Please tick any that apply)

- Night time..... ☐ 1  
 Dusk ..... ☐ 2  
 Weekends ..... ☐ 3  
 Week days..... ☐ 4  
 Peak hours..... ☐ 5  
 Wet conditions..... ☐ 6  
 Unfamiliar locations..... ☐ 7

**21. As a driver which, if any, of the following concern you now or in the future?**

(Please tick any that apply)

- |                                  | Concerns me now          | Concerns me for the future |
|----------------------------------|--------------------------|----------------------------|
| Right turns across traffic.....  | <input type="checkbox"/> | <input type="checkbox"/>   |
| Roundabouts.....                 | <input type="checkbox"/> | <input type="checkbox"/>   |
| My physical mobility.....        | <input type="checkbox"/> | <input type="checkbox"/>   |
| My vision declining.....         | <input type="checkbox"/> | <input type="checkbox"/>   |
| Impatience of other drivers..... | <input type="checkbox"/> | <input type="checkbox"/>   |
| My reaction/thinking time.....   | <input type="checkbox"/> | <input type="checkbox"/>   |
| Lack of signage.....             | <input type="checkbox"/> | <input type="checkbox"/>   |
| Too much signage.....            | <input type="checkbox"/> | <input type="checkbox"/>   |
| Fatigue while driving.....       | <input type="checkbox"/> | <input type="checkbox"/>   |
| Impact of medications .....      | <input type="checkbox"/> | <input type="checkbox"/>   |
| Changing road rules.....         | <input type="checkbox"/> | <input type="checkbox"/>   |
| The age of my vehicle.....       | <input type="checkbox"/> | <input type="checkbox"/>   |
| My hearing declining.....        | <input type="checkbox"/> | <input type="checkbox"/>   |
| Complex road markings.....       | <input type="checkbox"/> | <input type="checkbox"/>   |
| Other? (Please Specify)          | <input type="checkbox"/> | <input type="checkbox"/>   |

**22. What (if any) adjustments have you made to your driving habits compared to when you were younger (say 40)?**  
 (Please tick any that apply)

- Less likely to drink alcohol before driving..... ☐ 1  
 Drive slower..... ☐ 2  
 Avoid peak times..... ☐ 3  
 Less night driving..... ☐ 4  
 Keep trips short..... ☐ 5  
 Don't drive alone..... ☐ 6  
 Only drive alone..... ☐ 7  
 Avoid driving with children in the car..... ☐ 8  
 Keep more distance from other cars..... ☐ 9  
 Take more time turning across traffic..... ☐ 10  
 Stay out of the city or town centre..... ☐ 11  
 Avoid higher speed roads..... ☐ 12  
 Avoid rural roads..... ☐ 13  
 Avoid roundabouts..... ☐ 14  
 Prefer to make turns at traffic lights..... ☐ 15  
 Other? (Please Specify) ☐ 16

## PEDESTRIANS

*For older people, pedestrian fatalities are second only to accidents as the driver of a car! Once we step out of the car (or off the bus) we become pedestrians. So this section applies to everyone.*

### 23. Which of the following apply to you as a pedestrian? (Please tick any that apply)

- I mostly walk to get to my car ..... ☐ 1  
 I walk to the shops sometimes ..... ☐ 2  
 I walk to and from some appointments ..... ☐ 3  
 I walk to and from the bus stop ..... ☐ 4  
 I often walk for pleasure or exercise..... ☐ 5  
 I mainly walk close to home..... ☐ 6  
 I walk as my main mode of transport..... ☐ 7  
 I mainly use off-road pedestrian pathways .... ☐ 8

### 24. How many hours did you spend walking in total in the last week? (Only include walking outside your house and garden.)

- Less than 1 hour ..... ☐ 1  
 1—5 hours..... ☐ 2  
 6—10 hours..... ☐ 3  
 11—15 hours..... ☐ 4  
 More than 15 hours..... ☐ 5

### 25. What would influence you to walk more? (Please tick any that apply)

- Having facilities close by ..... ☐ 1  
 Better footpaths ..... ☐ 2  
 Better personal health ..... ☐ 3  
 Feeling safer crossing roads..... ☐ 4

### 26. Which of the following concern you as a pedestrian? (Please answer for every line)

	Not at all	A little	Important	Very Important
Lack of centre 'refuges' ....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uneven/broken paths .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overhanging branches.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slippery paths.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Curb heights.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of road crossings.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crossing times at lights.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
General busyness of roads.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traffic speed.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drivers' attitudes to you.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cyclists' attitudes to you.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall safety .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Being mugged .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inadequate lighting.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My health/fitness.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## TRANSPORT OPTIONS

*In this section we would like to explore your awareness and utilisation of various transport options. Canberra more than most cities, was designed with the car in mind and your experience of, and attitude towards, various transport alternatives is therefore an important issue to canvass.*

### 27. Which of the following transport options have you used in the last five years? (Please tick any that apply)

- Driven my own vehicle ..... ☐ 1  
 Often been a passenger in own vehicle..... ☐ 2  
 Often been a passenger with family/friends... ☐ 3  
 Taxis as a full fare passenger..... ☐ 4  
 Taxis using subsidy vouchers ..... ☐ 5  
 Wheelchair Accessible Taxi (WAT)..... ☐ 6  
 ACTION buses ..... ☐ 7  
 Community transport services ..... ☐ 8  
 Motorised scooter ..... ☐ 9  
 Bicycle ..... ☐ 10

### 28. Which of the following do you think you might use more in the next five years compared to the past? (Please tick any that apply)

- Drive my own vehicle ..... ☐ 1  
 Be a passenger in own vehicle..... ☐ 2  
 Be a passenger with family/friends..... ☐ 3  
 Taxis as a full fare passenger..... ☐ 4  
 Taxis using subsidy vouchers ..... ☐ 5  
 Wheelchair Accessible Taxi (WAT)..... ☐ 6  
 ACTION buses ..... ☐ 7  
 Community transport services ..... ☐ 8  
 Motorised scooter ..... ☐ 9  
 Bicycle ..... ☐ 10  
 Walking as a major means of transport ..... ☐ 11

### 29. Which of the following do you avoid or minimise because of the cost involved? (Please tick any that apply)

- Driving my own vehicle ..... ☐ 1  
 Being a passenger in my own vehicle..... ☐ 2  
 Taxis as a full fare passenger..... ☐ 3  
 Taxis using subsidy vouchers ..... ☐ 4  
 Wheelchair Accessible Taxi (WAT)..... ☐ 5  
 ACTION buses ..... ☐ 6  
 Community transport services ..... ☐ 7  
 Motorised scooter ..... ☐ 8  
 Bicycle ..... ☐ 9



**30. Which of the following do you find convenient? (Please tick any that apply)**

- Driving my own vehicle..... ☐ 1  
Being a passenger in my own vehicle..... ☐ 2  
Being a passenger with family and/or friends. ☐ 3  
Taxis as a full fare passenger..... ☐ 4  
Taxis using subsidy vouchers ..... ☐ 5  
Wheelchair Accessible Taxi (WAT)..... ☐ 6  
ACTION buses ..... ☐ 7  
Community transport services ..... ☐ 8  
Motorised scooter ..... ☐ 9  
Bicycle ..... ☐ 10  
Walking as a means of transport ..... ☐ 11

**31. Which of the following might you choose to use in order to maintain your independence? (Please tick any that apply)**

- Driving my own vehicle ..... ☐ 1  
Being a passenger in my own vehicle..... ☐ 2  
Being a passenger with family and/or friends. ☐ 3  
Taxis as a full fare passenger..... ☐ 4  
Taxis using subsidy vouchers ..... ☐ 5  
Wheelchair Accessible Taxi (WAT)..... ☐ 6  
ACTION buses ..... ☐ 7  
Community transport services ..... ☐ 8  
Motorised scooter ..... ☐ 9  
Bicycle ..... ☐ 10  
Walking as a means of transport ..... ☐ 11

**32. Which of the following might you avoid because of the time taken to complete a journey or the time required to organise it? (Please tick any that apply)**

- Being a passenger in my own vehicle ..... ☐ 1  
Being a passenger with family and/or friends. ☐ 2  
Taxis as a full fare passenger..... ☐ 3  
Taxis using subsidy vouchers ..... ☐ 4  
Wheelchair Accessible Taxi (WAT)..... ☐ 5  
ACTION buses ..... ☐ 6  
Community transport services ..... ☐ 7  
Motorised scooter ..... ☐ 8  
Bicycle ..... ☐ 9  
Walking as a means of transport ..... ☐ 10

**33. Which of the following do you sometimes feel unsafe using? (Please tick any that apply)**

- Driving my own vehicle..... ☐ 1  
Being a passenger in my own vehicle..... ☐ 2  
Being a passenger with family and/or friends. ☐ 3  
Taxis as a full fare passenger..... ☐ 4  
Taxis using subsidy vouchers ..... ☐ 5  
Wheelchair Accessible Taxi (WAT)..... ☐ 6  
ACTION Buses ..... ☐ 7  
Community transport services ..... ☐ 8  
Motorised scooter ..... ☐ 9  
Bicycle ..... ☐ 10  
Walking as a means of transport ..... ☐ 11

## GENERAL HEALTH ISSUES

*These questions will enable us to make some assessment about the influence of general health and fitness on selection of transport options and decisions being made about road safety.*

**34. How would you rate your overall health?**

- Very Good ..... ☐ 1  
Good ..... ☐ 2  
Satisfactory ..... ☐ 3  
Poor..... ☐ 4  
Very Poor..... ☐ 5

**35. In the last week, how much deliberate physical exercise would you have undertaken?**

*(Physical exercise includes activities such as walking, jogging, aquarobics, aerobics, gym, swimming, tai chi, tennis, bowls, golf, and indoor sports.)*  
*(Please tick any that apply)*

- None ..... ☐ 1  
Once for at least 20 minutes ..... ☐ 2  
2-3 times for at least 20 minutes each time ... ☐ 3  
More than 3 times for at least 20 minutes ..... ☐ 4

*Medications often have some influence on our alertness and can influence our choice of transport options. A significant number of older people are on one or more medications.*

*Question 36, on the next page, needs a definition of what we mean by medication. Medications include: prescriptions from a doctor or specialist; blood pressure medication, heart tablets; other treatments given by a doctor, dentist or therapist; anaesthetic from a dentist, anti-depressants; "over the counter" products from pharmacies and supermarkets; painkillers such as aspirin, codeine and ibuprofen (such as Nurofen); natural therapies such as: Valerian, Skull-cap, St John's Wort.*

36. In the last week, on the day when you took the most medications, how many medications did you take? (See definition on previous page)

- 0 ..... ☐ 1  
 1..... ☐ 2  
 2..... ☐ 3  
 3..... ☐ 4  
 4 or more..... ☐ 5

## ACT ROAD SAFETY INITIATIVES

The ACT has undertaken a number of road safety initiatives. Some are targeted to the general population, while some are specifically targeted at older people. Your answers to the following questions will help us understand the effectiveness of current initiatives and suggest ways to target them in the future.

37. Which of the following ACT Road Safety initiatives have you heard of?  
 (Please tick any that apply)

- "Coming of Age" older drivers' video ..... ☐ 1  
 "Older Drivers' Handbook" ..... ☐ 2  
 "Retiring from Driving" handbook ..... ☐ 3  
 "Scooter Safe Drivers' Guide" ..... ☐ 4  
 "There's Something About Scooters" video ... ☐ 5  
 "Livedrive" web-site for older drivers ..... ☐ 6  
 "Livedrive" seminar series ..... ☐ 7  
 "Overdrive" older drivers' refresher course .... ☐ 8  
 Urban Services road safety web-site ..... ☐ 9  
 "Cycle Lane Awareness" advertisements ..... ☐ 10  
 Master's Motorcycle course for mature riders. ☐ 11  
 "Gravel Road Awareness" advertisements .... ☐ 12  
 "Roundabout Awareness" campaign ..... ☐ 13  
 "Slip Lane Rules" advertisements ..... ☐ 14  
 "Tailgating" campaign ..... ☐ 15

38. For each of the following road safety initiatives please indicate your perception of its usefulness to older people in general.  
 (Please tick one per item)

	Unsure	Not Useful	Somewhat Useful	Significantly useful
Videos about road safety issues .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Road safety seminars at clubs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Web-sites about road safety.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Newspaper advertisements.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Television advertisements.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radio advertisements.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Older driver refresher courses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Booklets about older road users.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advertisements in magazines.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brochures with road safety facts .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

39. For each of the following road safety initiatives please indicate your perception of its usefulness to you personally.  
 (Please tick one per item)

	Unsure	Not Useful	Somewhat Useful	Significantly useful
Videos about road safety issues .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Road safety seminars at clubs.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Web-sites about road safety.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Newspaper advertisements.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Television advertisements.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radio advertisements.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Older driver refresher courses.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Booklets about older road users.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advertisements in magazines.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brochures with road safety facts .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

40. What are the best ways to reach you with road safety messages? For each of the following methods, please indicate how likely it is to have some impact on you.  
 (Please tick one per item)

	Negative Impact	No Impact	Some Impact	Significant Impact
The Canberra Times.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The Chronicle .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The Australian Senior .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
'50 Something' .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ABC local radio .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Commercial radio .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ABC television .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Commercial television.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
With licence renewals .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
With registration renewals .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Posters at ACT Shopfronts .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
On bus advertising .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Web-sites .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
With electricity accounts .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Letterbox drops (junk mail).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At doctors' surgeries.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROAD SAFETY AWARENESS

*The following questions are designed to find out how aware people are of the messages that have been presented in various ways in recent years. We want to know if the messages are "getting through". The answers will be placed on the Livedrive web-site after the survey is complete.*

*For each statement please select TRUE or FALSE. If you do not know an answer, select the one you think is most likely to be correct.*

- Q1.** Those aged 65 and over have more road accidents than those aged between 40 and 65.  
TRUE ☐ FALSE ☐
- Q2.** If you are aged 65 or over you are more likely to die as a pedestrian than as a passenger.  
TRUE ☐ FALSE ☐
- Q3.** Those aged 65 and over are more likely to die as a result of a road accident than those aged between 40 and 65.  
TRUE ☐ FALSE ☐
- Q4.** Older people are more likely to have a problem with alcohol than younger drivers.  
TRUE ☐ FALSE ☐
- Q5.** Older drivers tend to adjust their driving to allow for the effects of ageing.  
TRUE ☐ FALSE ☐
- Q6.** The most dangerous manoeuvre for older drivers is making a right hand turn across traffic.  
TRUE ☐ FALSE ☐
- Q7.** The most difficult manoeuvre for older drivers is traversing roundabouts.  
TRUE ☐ FALSE ☐
- Q8.** Most people aged 65 and over are likely to be taking one or more medications a day.  
TRUE ☐ FALSE ☐

- Q9.** If I get a medication from the supermarket, it is unlikely to affect my driving.  
TRUE ☐ FALSE ☐
- Q10.** The basic road rules have not changed significantly since I got my licence.  
TRUE ☐ FALSE ☐
- Q11.** Older drivers usually drive at safer speeds.  
TRUE ☐ FALSE ☐
- Q12.** When walking across (or alongside) a road at night, it is important to wear bright coloured clothing.  
TRUE ☐ FALSE ☐
- Q13.** Most road accidents occur close to home.  
TRUE ☐ FALSE ☐
- Q14.** Exercise and fitness will not significantly help my ability and safety as a driver.  
TRUE ☐ FALSE ☐
- Q15.** Exercise and fitness will not significantly help my ability and safety as a pedestrian.  
TRUE ☐ FALSE ☐
- Q16.** Safety features of a car are a very important factor in my protection as an older driver or passenger.  
TRUE ☐ FALSE ☐
- Q17.** My doctor will advise me if I am not fit to drive.  
TRUE ☐ FALSE ☐
- Q18.** Older people who are physically active are less likely to be injured as a result of a road accident.  
TRUE ☐ FALSE ☐

Answers to these questions will be made available at the "Livedrive" Web-site approximately 3 weeks after completion of the survey period.

[www.livedrive.org.au](http://www.livedrive.org.au)

## Appendix D

### Focus Group Presentation & Questions

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# Older Persons Road Safety Needs Analysis

## Focus Group

2 November 2006

1

# Older Persons Road Safety Needs Analysis

Group Facilitator

Allan Brownsdon

2 November 2006

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## What Today is About

- **Introductions**
  - ◆ Please introduce yourself
- **Project Orientation**
  - ◆ An overview of the project
- **Focus Group Orientation**
  - ◆ What this focus group is about and how you can help us

2 November 2006

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## What Today is About

- **Review of the Data**
  - ◆ A brief overview of the data collected
- **Round Table Discussion**
  - ◆ Looking at specific issues that arise from the data by discussing both specific responses and general observations

2 November 2006

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## Project Orientation

- **Called the Older Persons' Road Safety Needs Analysis**
- **An analysis of the road safety needs of older people in the ACT**

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## Project Orientation

- **To be presented to the NRMA-ACT Road Safety Trust; and**
- **the ACT Government with the intention that:**
  - ◆ It will contribute to the development of a Road Safety Strategy specifically targeted at older road users as a group with specific needs
- **Project has 3 parts**

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## Project Description

### Part 1

- **An analysis of the various road safety projects undertaken within the ACT in the last 5-years relating to older people**
- **A literature review of material relating to older people and road safety in the ACT**

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## Project Description

### Part 2

- **Wide consultation with the ACT community and road safety experts:**
  - ◆ Complex survey of approx 5% of the ACT community aged 65 and over
  - ◆ Focus Groups to check out results and conclusions and to clarify issues
  - ◆ Road safety experts for comment and review

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## Project Description

### Part 3

- **The identification of specific needs and development of a series of recommendations for carrying road safety forward for this group in the next 5 years**

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## Schedule/Status

- **Expected to be completed June/July 2006**
- **Draft of Part 1 document essentially complete – over 80 pages**
  - ◆ to be finalised after Part 2 to allow integration of outcomes

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## Schedule/Status

- **Currently Completing Part 2**
  - ◆ Survey analysis complete
    - ❖ Part 2 Draft at 87 pages with over 80 tables and graphs
  - ◆ Holding these focus group meetings

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## Survey Process

- **Developed in conjunction with a reference group of road safety experts & consumer representatives to examine:**
  - ◆ How older people use transport services in the ACT
  - ◆ What services are preferred and by what sub-groups
  - ◆ What factors determine usage of any particular transport service

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## Survey Process

- ◆ Factors that might influence safe practice for older road users
- ◆ The awareness of older road users of existing programs and road safety messages; and
- ◆ The best means to approach older road users with road safety information

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## Survey Statistics

- Over 4000 surveys sent out to a randomised sample of older people in the ACT
- Survey consisted of 7 x A4 pages of questions
- 1460 responses received back, coded and analysed = 4.8% of ACT 65+ age group

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## Survey Results Demographics

- Gender of those responding is interesting:
  - ◆ Proportionately more males than females responded
    - ❖ Female = 48.5%
    - ❖ Male = 50.8%

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## Survey Results Demographics

- 64% of respondents lived in a couple relationship
- 26% lived alone
- When in couple relationships, men tended to respond and appear to do most of the driving
- When alone, females responded to the survey

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## Survey Results Demographics

- Culturally, 88% come from an English speaking background
- 12% had a first language other than English with over 51 different languages indicated
- There was a lack of responses from people of Asian background – we are unclear about why that is so

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## Survey Results Demographics

- Income levels – wide variation
- Survey demographics questions the tendency to group "Older Drivers" as a single target group!

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## Survey Results Preferred Transport Methods

- The car reigns supreme as the preferred transport method
- Over 80% used their car at least once per week
- Walking is the next most significant transport option

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## Survey Results Licence and Car

- **Licence Statistics**
  - ◆ 89% have held a licence
  - ◆ 85% currently hold a licence
  - ◆ 5% never held a licence
  - ◆ 4% "Retired from Driving"

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## Survey Results Licence and Car

- Over ¼ (28%) of respondents drive a small car which has implications for their safety on the road

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## Survey Results Licence and Car

- **Car Ages**
  - ◆ 62% have cars less than 10 years – GOOD
  - ◆ 38% over 10 years
  - ◆ 18% over 15 years
- **Car age is linked to Income**
  - ◆ Lower income suggests older car
- **Car age links to car safety features**

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## Focus Group Question



- How aware are you about the issue of frailty for older people (bone density, lower muscle mass, etc) as a risk factor for injury or fatality in an accident?
- How aware are you of the importance of car safety features as a protection measure? How highly would they really rate in your purchasing decision?
- Are you aware of ANCAP data, would you make use of it?

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## Survey Results Journeys & Distance

- Most people are making short journeys (less than 30 km's per journey)
- 43% had made journeys of 500+ kms in the previous year
- Nearly ¾ of respondents had travelled distances of more than 100 kms in the previous year – i.e. Interstate

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## Focus Group Question



- The WA government has produced a booklet about long distance driving for older people (including issues of caravans etc)
- Should we have the same?
- If so, the target would be those aged 60 – 75. How should we market it to them – i.e. what sort of messages to 'sell it'?

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## Survey Results Driving Behaviour

- Most older drivers indicate that they modify their driving behaviour with age
  - ◆ 50% try to avoid night driving
  - ◆ 45% avoid peak hours
- Behaviour modification expands with age
- BUT, some concern about relative awareness of actual risks

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## Survey Results Driving Behaviour

- Significant numbers not aware of:
  - ◆ Increased frailty risk (bone density, muscle mass, etc)
  - ◆ Risk increases relative to those who are younger (say 40 – 65)
- Seems to be some resistance to messages targeted at them as a group

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## Focus Group Question



- Are older people less likely to pay attention to messages targeted specifically at them?
- If so why?
- If so, how do we overcome this resistance?

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## Survey Results Areas of Concern

- An interesting issue that may be emerging is concern about increasingly complex "on-road" markings
  - ◆ 15% indicated that this concerned them

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## Focus Group Question



- Given that we know that
  - ◆ We tend to have slower reaction times
  - ◆ We tend to think slightly slower when confronted with complex tasks
  - ◆ We usually correct for slower thinking by use of wider experience

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## Focus Group Question



- Do you perceive that the complexity of road markings is increasing?
- Is it a concern and if so how should we correct for this?

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## Survey Results Areas of Concern

- Roundabouts are a concern for 16% of respondents
- This is consistent with national results
- However, given the ACT's long term experience with roundabouts perhaps a little surprising

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## Focus Group Question



- What do you think is the issue relating to roundabouts?
- What needs to be done to make roundabouts better for older people?

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## Survey Results Areas of Concern

- 39% of respondents indicated that the impatience of other drivers is a concern

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## Focus Group Question



- What do you think is the issue about other drivers?
- What can be done about it?

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## Survey Results Driving Issues

- Respondents suggest that they drive less as they age
- In particular, in couple relationships, the men do most of the driving
- Skills are best maintained by regular use – this is true for driving as for other activities
- Women therefore risk 'de-skilling' faster than men

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## Focus Group Question



- How can we best encourage people to maintain their driving skills while apprising them of the risks?
  - ◆ Are refresher programs desirable?
  - ◆ What about licence testing – should we have it for say 80 year olds?

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## Survey Results Pedestrian Activity

- Most respondents (66%) indicated that they walk for pleasure or exercise
- 46% suggested that they walked close to roads rather than on "off-road" pathways
- About 25% of all road fatalities for those aged 65+ is as a pedestrian – more than for passengers in a car!

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## Focus Group Question



- Why do you think people do most of their walking near the road?
- Is this something that we can do something about or is it simply because of where people walk to?

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## Survey Results Pedestrian Activity

- Respondents indicated considerable concern about uneven and broken pathways (55%)

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## Focus Group Question



- Can you expand on this issue and suggest what needs to be done?

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## Survey Results Public Transport

- Public transport is one of the safest forms of transport
- About 16% of people use buses regularly, about 11% once per week or more
- While about 47% of people suggested that they might use buses more in the future
- 41% indicated that they avoid them because they take too long

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## Focus Group Question



- Can you discuss buses and what you see as their advantages and problems?
- What would encourage you to make more use of buses?
- Would you make use of a "shoppers bus" to the nearest town centre?

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## Survey Results Getting the Message Across

- General advertising campaigns targeted at the population as a whole
  - ◆ Roundabout campaign
  - ◆ Slip-lane rules
  - ◆ Cycle lane awareness
- Awareness is between 12% and 25%

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## Survey Results Getting the Message Across

- Programs with messages targeted directly to older people have varying levels of awareness
  - ◆ Older Drivers' Handbook (36%)
  - ◆ Retiring from Driving Handbook (10%)

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## Survey Results Getting the Message Across

- Preferred methods of contact are (highest 5 rankings):
  1. With licence renewals
  2. With registration renewals
  3. The Canberra Times
  4. ABC Television
  5. The Chronicle

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## Survey Results Getting the Message Across

- Interestingly there is a difference between what people thought was good for others versus what they said they would respond to

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## Focus Group Question



- What do you think are the best ways to get road safety messages to older people?
- How do we raise awareness without compromising confidence – which seems to be an issue?  
*(We need to increase awareness and increase skill and confidence at the same time!)*

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