

Grey Nomads: Road Safety Impacts and Risk Management

Obst, P., Brayley, N., and King, M.

Centre for Accident Research and Road Safety – Queensland (CARRS-Q),
Queensland University of Technology (QUT)

Abstract

The Australian population is ageing, and an increasing number of older Australians are becoming “grey nomads”, driving long distances on high speed rural roads. While many drivers in this age range are engaging in self regulation and limiting their driving to known roads, this population are driving on highly unfamiliar roads, and possibly engaging in unfamiliar practices such as towing large loads (e.g. caravans, camping trailers) or driving large vehicles (e.g. motorhomes, large four wheel drives). The current factors that contribute to this travel pattern, the associated exposure to risk and the crash outcomes are largely unknown. The current study provides an overview of this growing social group, through the results of a pilot study (N = 136). The study details the distances travelled by grey nomads, the types of trips and places frequented, and the typical duration of trips. The research also details what risks in terms of both health and road safety they may be exposed to and their current knowledge and management of these risk factors. Further, the research explores the safety advice available to this population and how they access this information. In the context of the potential growth of the grey nomad movement, the research presents recommendations for the type of safety information and education most needed to minimise their risk exposure and the best way of disseminating this information within this specific population.

Keywords

Grey Nomads, Road Safety, Road Safety Education, Risk Management, Older Drivers

Introduction

The ageing of the 'baby boomer' generation, combined with improved health, longevity and our declining birth rates, is transforming the make up of Australian society. The OECD reports that in Australia the percentage of the population aged 65 or more is projected to rise from 12.6% in 2000, to 22.1% in 2030. In line with the rise in the proportion of the population over 65, the Road Traffic Authority projects that the number of older Australians holding a driving license will also rise in line with these figures. A large proportion of these older drivers seem to be engaging in a more active form of retirement by taking long trips around Australia.

Research from Tourism Research Australia into use of caravan and camping accommodation in Australia [1], suggests that the number of registered caravans and campervans is rising. Examining data on use of camping grounds shows that 24% of visitor nights were accounted for by those aged 55 and over. The research indicated that these 'senior travellers' took roughly the same number of trips during the year as the other groups, but travelled for longer periods during the year, usually about double that of families [1]. However, these figures are only indicative of nights spent in camping grounds, many senior travellers also spend at least some time free camping in the bush, at truck stops, at rest stops, and at convenience/comfort stops.

The 2004 figures from the Caravan Industry Australia show, the majority of people who bought a caravan or motorhome were in the 54-62 age bracket [1], and indicates that the average profile of the typical caravan buyer is getting older [2]. An article published in the Courier Mail stated that travel by "Grey Nomads", the term coined specifically to describe this new form of retired traveller, rose 8% between 2004 and 2005 [3].

Thus, it would appear that as our population gets older and stays healthier, every year sees an increase in the number of older Australians taking to the road to explore the country. This growing social phenomenon remains an area where very little systematic research has been conducted. Such research is needed to gain an overview of who are the so called "grey nomads" and what risks they are exposed to as they travel through remote areas on unfamiliar roads, either towing or driving large vehicles

Who are the Grey Nomads

While there is no official definition of the term "grey nomad" the general application of the term is to semi-retired, or retired people who travel for all, or part of the year, throughout Australia. They are generally seen as being aged 55 and over. These long-term travellers usually use a caravan or a motorhome as their base.

One of the few studies to specifically examine grey nomads was conducted by Onyx and Leonard [4, 5] who undertook an ethnographic study. Travellers from 216 vehicles were surveyed, these mainly comprised couples, only 7% were travelling alone. The average age of those who took part in the study was 61.3 years for females and 64.5 years for males.

Some of the main themes identified by Onyx and Leonard [4,5] were the positive aspects of travelling to experience Australia, feelings of freedom, learning opportunities, the natural beauty and adventure. The other major theme to emerge was establishing social networks with other Grey Nomads. Respondents indicated that they stayed in touch with people they met even when they returned home. The

authors' findings are in line with the anecdotal evidence gleaned from Grey Nomad websites, forums, and newspaper articles. Hence, it would appear that this population has strong social networks and established communication channels.

When asked if they had experienced a health scare at any stage in the past two years, the authors report that 21% of females and 32% males reported a health incident of some kind. In fact one of the main triggers for embarking on their tour for most of the sample was that they or a close friend had experienced a major health episode. Hence, an obvious concern for this population is dealing with a health concern/emergency when they are not within easy reach of a town or medical help.

Potential Road Safety Issues

An area of safety concern for this population is the effects of ageing upon driving abilities. With ageing, changes in vision encompasses factors such as a deterioration in visual acuity, the size of the visual field, ability to cope with glare, speed of visual processing and changes in visual contrast [6, 7]. Additionally, there are changes in cognition. In essence, this involves slower processing of information and diminished attentional abilities [6]. Information that is processed is integrated with existing knowledge less easily, and initiation of responses is slower [7]. For example research on the effect of ageing on decisions about when it was safe and unsafe to cross a 'T' intersection in rural areas found that drivers who were aged over 59 years of age had slightly longer reaction times, more visual defects, more restricted head movement, and were almost 0.4s slower in completing the lane clearance test than their younger counterparts [9]. There are numerous studies that indicate that, as drivers age, they institute compensatory mechanisms such as reducing the amount of driving they do, only driving along well known routes, avoiding complex traffic situations, and travelling at less busy times of the day [10].

Hence, normal age related deterioration in driving ability must be acknowledged as a factor for the grey nomad population. This is of particular concern as the normal compensatory mechanisms employed by ageing drivers such as limiting their driving and driving only in familiar places are not possible for the Grey Nomads who are more likely to be driving on roads and in conditions which are unfamiliar to them. This may be compounded by the fact that many are also driving large vehicles or towing long loads with little previous experience of this very specific type of driving.

The next potential issue is supported only by anecdotal evidence: that of outback road etiquette. Perusal of Grey Nomad websites and forums revealed that, from the point-of-view of professional truck drivers, some Grey Nomads are unaware of the unwritten rules of driving along rural or outback roads. This was of such concern to some truck drivers that they opened topics in Grey Nomad web-based forums to inform their audience of these rules, and the ways in which they were being broken by Grey Nomads. While not 'scientific' evidence, the existence of such forums indicates that there may be an issue in regards to trucks and Grey Nomads sharing the road.

No research to date systematically examines road safety issues for the "grey nomad population" Again only anecdotal evidence from websites and conversations with local police in rural towns suggests potential areas of concern for this population. Issues which have been noted include driving on dirt roads or narrow bitumen roads, knowing how to safely deal with road trains, dealing with wildlife on the road, dealing with strong cross winds while towing a long vehicle, driving long distances, combating fatigue, as well as understanding bush fires and general fire safety. These

issues are of such concern to some local police that they have set up education programs and outreach to “grey nomads” in local camping grounds to try and deliver some basic road safety messages.

Collecting data on the specific crash rates of grey nomads is extremely difficult as they are not a defined population on any crash data bases. Further, many of the smaller accidents and incidents they are involved in may not be reported, hence to date there is no real indication of the road safety risks that grey nomads may be exposed to. This is clearly an area in need of further research.

So in summary, statistics indicate that the population of Australia is ageing, with a potentially high impact on road crash patterns and numbers [11]. While many older road users travel short distances and control their exposure to risk [12], “grey nomads” form a distinctive subgroup characterised by long distance travel on high speed rural roads, and towing or driving long vehicles. This growing social phenomenon remains an area where very little systematic research has been conducted. The current research aimed to gather preliminary data to give an overview of a sample of these “grey nomads” where they travel, and what risks they are exposed to as they traverse remote areas on unfamiliar roads, either towing or driving large vehicles to which they may be unaccustomed. As such this is a purely exploratory study, aimed at descriptive analysis of the population to begin to pinpoint areas in need of further investigation.

Method

Participants

Participants were 136 individuals over 50 years of age who identified themselves as having undertaken a long term road trip in the last two years. There were 93 males, and 43 females. Twenty three percent were under 55 years, 50% were aged between 56 and 65, 19% were aged between 66 and 70 years and 8% were over 70 years. The majority were Australian born (80%), with 7% born in the United Kingdom, 5% born in New Zealand and the remainder from a variety of other countries, including Zimbabwe, Holland, Germany and USA. Thirty eight percent held junior certificates, 20% had senior certificates, 15% had a trade certificate and 27% had a tertiary degree.

Measures

Based on interviews with local police involved in road safety education, and members of established caravanning and motorhome clubs, a survey was developed. The survey asked for demographic information, details of trips undertaken in the last 2 years, the occurrence of any road or other safety incidents, and how these incidents were managed. Participants were asked if they had undergone any formal training before they left on their trip and the nature and usefulness of this training or education. There were also measures of perceived road safety knowledge as well as an objective measure of road safety knowledge specific to remote and rural driving.

Procedure

Participants were recruited at the Qld Caravanning and Camping Show held in Brisbane in June 2008. Visitors to the show were randomly approached and asked if they had taken a long term road trip in the last 2 years. If they answered yes they were invited to participate in the current research by filling out the survey and returning it to the boxes provided at the show or by reply paid envelope. The current paper is based on the data of the 136 individuals who completed the survey during the

camping show. There is still a large amount of data from those who returned the survey at a later date that is yet to be compiled, and hence exact response rates are yet to be calculated.

Results

Sample Demographics

Employment Status: Twenty-five percent of the sample were still engaged in full-time employment, 21% were semi retired, 21% were fully retired on a full pension, 13% were fully retired on a part pension, and 20% were self funded retirees.

Travel Experience: Twenty-five percent of the sample had been taking long road trips for 1-5 years, 23% of the sample had 5 to 10 years experience of long road trips and 52% of the sample had more than 10 years experience.

Form of travel: Eighty percent of the sample travelled independently as a couple, a further 8% travelled as couple but with a larger group. Six percent travelled alone, while 2% travelled alone but as part of an organized group, 5% travelled with their family. Twenty-one percent were members of formal caravanning or motorhome clubs, 9% were members of an informal club and 70% were not members of any association. Interestingly, 72% of the sample identified moderately to strongly with the term grey nomad. The sample was comprised of mostly the principal driver (78%) with 22% generally being passengers but undertaking some shared driving.

Vehicles Used: Thirty percent drove a normal car, 60% drove a 4x4 vehicle, and 10% drove a motorhome. Fifty-one percent of these vehicles were less than 5 years old, 28% were 5 to 10 years old and 21% were more than 10 years old. Sixty percent of the sample towed a caravan, 11% towed a camper trailer, and 2% towed a boat or box trailer. Of these towed vehicles, 62% were less than 5 years old, 25% were 5 to 10 years old and 13% were more than 10 years old. The majority of the sample (93%) belonged to a state automobile club for emergency breakdown assistance.

Licence and Driving Experience: Eighty-eight percent had a normal car licence only, while 12% also held a truck, bus or articulated vehicle licence or some combination of these. Ten percent had held their licence for less than 30 years, 25% had held a licence for 31 to 40 years, 48% had held a licence for 41 to 50 years and 17% had held a licence for more than 50 years. The majority of participants (69%) reported being highly confident in driving on rural and remote roads, 27% were moderately confident, and 4% were slightly confident. Table 1 shows rating of participants experience in various driving conditions.

Table 1
Self Reported Driving Experience across Stated Conditions

| Experience | Urban Driving | Rural Sealed Roads | Remote Unsealed Roads | Motorhome or Towing Experience |
|------------|---------------|--------------------|-----------------------|--------------------------------|
| Extensive | 73% | 71% | 41% | 44% |
| Moderate | 24% | 22% | 36% | 35% |
| Limited | 3% | 7% | 23% | 21% |

Safety Issues: Objective rural and remote road safety knowledge was measured on a simple test with a total score correct out of 12. Participants scores ranged from 3 to 12 ($M = 8.26$, $SD = 1.75$). When asked to rate their own rural and remote road safety knowledge ratings ranged from 5 to 12 ($M = 11.06$, $SD = 1.06$). These ratings were significantly higher than their scores on the objective road safety knowledge test ($t(134) = 15.11$, $p < .001$). Table 2 presents participants ratings of their awareness of road safety issues on their trips, their confidence in their ability to deal with incidents that may occur, and their knowledge on where to access information if required.

Table 2.

Participants' Ratings of their Awareness of Road Safety Issues.

| Rating | Awareness of road safety issues | Confidence to deal with road safety incidents | Knowledge on accessing specific road safety information |
|----------|---------------------------------|-----------------------------------------------|---------------------------------------------------------|
| Strong | 74% | 55% | 55% |
| Moderate | 24% | 39% | 30% |
| Slight | 2% | 5% | 15% |

First Aid Knowledge: Only 20% of the sample held a current first aid certificate. While 16% rated their first aid knowledge as above average and a further 66% as average, 18% rated their first aid knowledge as below average.

Details of the Trips Taken by Participants

The duration of trips taken by the current participants ranged from 1–104 weeks, with a median of four weeks. The total number of kilometres travelled ranged from 600 to 40000, with a median of 4000kms. Although some participants travelled for the whole year, 36% reported that they principally travelled in autumn, 28% in winter, 18% in spring, and 18% in summer. The primary purpose of the trips was for pleasure. The cost of trips ranged from \$1000 to \$50 000 (Median = \$3000). Money spent per week ranged from \$100 to \$3000 with an average of \$695 spent per week.

The major destinations of trips reported by the participants were, in order of most to least mentioned, Central Qld, North Qld, Darwin, Alice Springs, and Western Victoria. Less reported destinations listed were, Adelaide, Perth, SE Qld, Broom, The Grampians, and Tasmania. The percentage of driving that was done on unsealed roads ranged from 0 to 99% with a median of 10 percent of the driving over the whole trip.

Accommodation on trip: Participants were asked to rate the proportion of time they spent in various types of accommodation. On average participants reported spending 61.5% of their accommodation nights in caravan parks, 9.5% in camping areas, 10% in free parks (e.g. those provided by local towns), 3% in rest areas, 10% bush camping and 5% with family or friends. The sample seemed to break down into

two principal groups those who stayed mainly in caravan parks or official camping grounds (80%), and those that stayed mainly in free parks, bush camping, and in rest areas (20%).

Driving Habits while on long Road Trips

Seven percent of participants reported driving more than 8 hrs a day on average while on an extended road trip. Twenty percent drove 6-8hours, 51% drove 4 – 6 hours and 22.5% drove less than 4 hrs. Twenty-five percent of participants reported stopping every 1-2 hours, 64% stopped every 2-3 hours and 11% stopped every 3-4 hours. The majority (77%) stopped for at least 15-30mins, with 13% stopping for less than 15mins. When asked to list the places that they stopped to take a break, 76% reported using rest area's, 40% used service stations or roadhouses, 41% stopped in towns, 40% stopped in parks and 30% reported stopping on the side of the road if they needed to.

Safety Equipment Taken on Trip: When asked to list any safety equipment taken with them, 76% reported taking or adding some kind of extra braking systems (e.g. on towed vehicle). Other pieces of safety equipment listed were safety chains (70%), reversing mirrors (62%), sway bars (54%), weight distribution hitches (51%), recovery equipment (54%), maintenance equipment and spare parts (66%), and extra fuel (48%).

Eighty-nine percent reported carrying a first aid kit. In terms of navigation equipment, 85% carried detailed maps, 46% carried a GPS, and 30% reported carrying a compass. A further 80% reported checking road and weather conditions before leaving.

The majority of participants reported carrying communication equipment. Fifty-three percent carried a digital mobile phone, 56% a Next G phone, 8% a satellite phone, 65% a UHF Radio and 30% carried a laptop with internet connection. In terms of communication problems listed, the majority of participants experienced problems with coverage on all devices at some point.

Incidents Experienced While Travelling

Six percent of the participants had experienced a road crash of some kind. Crashes reported included colliding while changing lanes as the other car was in their blind spot; an open door being hit by a passing car while the participant was stopped on the side of the road; another driver going through a red light and colliding with the participant; the participant failing to stop at stop sign in a rural town; the participant hitting a deep pothole when moving off a narrow road and damaging an axle; being passed on the inside in a merging lane and clipping the car; and the brakes on caravan failing in wet weather. No injuries were reported from these crashes.

Five percent of the participants had experienced a medical emergency while travelling. Several of these involved minor falls, although three falls resulted in broken arms and one in a damaged knee. A further medical emergency reported, involved very painful kidney stones while in a remote area, and a one hour trip to reach help. A further 14% had experienced some kind of health scare while travelling. For example, severe chest pains, back injuries, deep vein thrombosis, severe arthritis, cervical cancer diagnosis, pneumonia, and fainting fits. These health problems were treated at local regional hospitals or by local GP's.

Seventeen percent reported having hit animals such as kangaroos, emus, cows and birds. The resulting damage ranged from mild to needing to be towed. Eight percent of the sample reported difficulties with road trains. These included both difficulties passing and being passed and also have stones sprayed by road trains when they moved off road. Thirty percent had experience flooding or severe weather conditions of some kind.

Eleven percent reported towing problems, for example strong winds making the caravan sway, and 16% reported parking difficulties especially in larger towns and near shopping centres. A number of other more minor incidents were also reported for example 31% reported broken windscreens, 35% reported flat tyres, 10 % reported a breakdown and 10% reported having been bogged in either sandy or muddy conditions. Finally of note is that 10% of participants reported that they had experienced driver fatigue.

In dealing with these incidents 60% reported that they managed the incident themselves, 8% had called the RACQ, 6% flagged down passing vehicles and 2% had called 000.

Information and Advice Sought by Participants

When asked to report the kind of information that they had sought before or during their trip, 60% of the participants reporting seeking information in regards to safe towing and maintaining towing equipment, and 47% had sought information regarding braking systems and braking while towing. Forty-three percent had sought information on vehicle maintenance and 44% had sought information about the correct loading of their vehicle. Sixty percent had sought information about communication devices for travel in remote areas.

Thirty percent had sought information about dealing with common incidents such as blow outs, flat tyres and broken windscreens. Forty percent had sought information on interstate road rules. Twenty-five percent had sought information on what to do if they broke down in remote areas. Only 20% had sought information on driving on remote or rural roads.

In terms of health advice, 26% had sought information on preventing driver fatigue, 27% had sought information on preventing deep vein thrombosis, and 22% had sought information about obtaining medications in rural areas.

When asked where they had received information, 71% of participants stated they had found information in brochures, magazines or booklets, 38% had found information on the internet and 14% had undergone some kind of formal training course through a state automobile club, or caravanning club or at a caravanning show.

The main source for finding information was fellow travellers with 61% of the sample listing them as a major source of information. Other sources of information were state automobile clubs (51%), caravanning or motorhome clubs 38%, and government agencies such as transport departments (37%).

Further Information Participants Would Like to Access

Ninety-two percent of respondents moderately to strongly agreed that they would benefit from more specific safety information. When asked what further information they would like to have, respondents listed a number of areas. The main area suggested by many participants was more information on local road conditions, and current road works. They suggested that local tourist information centres would be a good place to access this information.

Other needs raised by participants were brochures on how to access roadside assistance in remote areas and emergency procedures in remote areas. They also expressed a need for detailed information on the safest ways to drive on different road widths and surfaces and how to engage with other users (especially road trains and other wide vehicles) in these different conditions, rural road etiquette and how best to deal with fast and slow vehicles on narrow roads. A further suggestion was a booklet with an example trip planner, detailing the kinds of information you should be aware of and where to get the information.

Many participants suggested a need for more easily accessible, simple and easy to understand information on towing. Suggestion included information on loading, legal towing weight, towing safety and maintenance issues. It was suggested that a good way to reach people may be a booklet posted out with caravan registration renewal. There were also suggestions for some sort of compulsory training course either face to face or internet based that should be completed when buying a new caravan or motorhome. Many participants suggested that it was too easy to buy a large vehicle and head off without being made aware of safety, driving and maintenance issues.

Several participants requested more information on awareness of fatigue symptoms and how to combat symptoms when driving long distances. Another common suggestion was access to simple and affordable first aid courses. Again it was noted that these could be either face to face or for easy access internet based.

Finally, a number of participants suggested that it would be very beneficial to have a purpose built website, that was easy to use and find information or at least the links needed to access a variety of information, from weather reports to driving issues and vehicle maintenance issues.

When asked where they would prefer to access information 74% of respondents listed the internet, 55% written material e.g. brochures, 40% government agencies, 32% state automobile clubs, 22% caravanning or motorhome clubs, 20% TV, 17% radio and only 7% from formal training courses. However, 42% of respondents indicated that they would be willing to attend a general formal training course and 48% would attend a formal course on an issue specific to their needs e.g. towing, outback driving, and remote area communication devices. Those who said they would not be willing to participate in formal training suggested barriers to participation included lack of time (10%), cost (20%), that they would prefer an easier way to access this information (33%) or that they would prefer to access information themselves as needed (35%).

Discussion

As expected participants were predominately in the 55 to 65 year old age bracket and over three quarters were in some kind of semi or full retirement. Most did have quite a lot of experience in this kind of travel; the majority had been travelling like this for more than five years. The majority travelled independently as couples and not as part of an organised group. Most owned four wheel drives and towed a caravan or camping trailer of some kind. Towing emerged as an important issue throughout the survey. Interestingly an overwhelming majority of the participants did identify themselves as "grey nomads". This finding has possible implications for effectively disseminating information to this cohort of drivers.

In terms of driving experience the majority of participants had extensive experience driving on urban roads and on sealed rural roads. The proportion of participants with experience driving on remote or unsealed roads was somewhat less

than the proportion with experience on sealed roads. The proportion of the sample with extensive towing experience was also somewhat less than the proportion of participants who did tow a caravan or trailer.

Participants scored reasonably well on an objective measure of rural and remote road safety knowledge, with an average score of eight out twelve. However, this was significantly less than they how they rated themselves on road safety knowledge, suggesting that participants tended to overestimate their own skills and knowledge of rural and remote driving.

A particular area of concern was that only 20% of participants reported having a first aid certificate and only 16% suggested that their first aid knowledge was more than average. In light of the fact that five percent of the sample reported a medical emergency and another 14% reported a health scare of some kind, this is an area in need of some attention. Participants did suggest that they would like to have more information about first aid in an easy to access and cost effective format. Perhaps rural towns could offer affordable and simple first aid courses, advertised in caravan parks and tourist information areas, so that grey nomads can keep their first aid knowledge current. This may also serve to increase engagement between nomads and the towns through which they travel and provide an area for towns to raise a small amount of revenue.

Destinations of the trips undertaken by the nomads were varied, with north and western Queensland featuring strongly in this particular sample. Trip lengths also varied dramatically from weeks to over a year, as correspondingly did the kilometres travelled. An average of 10% of the kilometres driven by participants were remote unsealed roads, an area of driving where many Nomads had limited experience and another focus for educational needs.

Most participants reported driving a reasonable number of hours a day and taking plenty of stops, although some fatigue related incidents were reported. Participants also listed fatigue awareness as an area where they would like to have more information. The majority of participants reported using rest areas to stop. This again attests to the importance of having rest areas at regular intervals on major routes. These rest areas must also be large enough to comfortably accommodate long vehicles such as motorhomes and caravans.

A small but significant number of crashes were reported by participants. Some of these were related to obstructed vision such as blind spots, and although many participants reported having extra mirrors fitted to their vehicles, this may be an area where more awareness raising information should be targeted. Other incidents related to moving on to shoulders when approached by oncoming vehicles on narrow roads. Further dealing with road trains was reported as an issue for many participants who had felt forced of the road or had been sprayed with stones. Information on dealing with road trains and driving safely on narrow roads could be incorporated into education dealing with driving in rural and remote areas. Participants called for specific education on driving on different road types such as narrow bitumen roads. Although hitting animals was a commonly cited incident, this was not an area in which participants requested further information. However, as it is such a common occurrence, as grey nomads grow in number, particularly those with little experience in rural driving, such information should be included in informational brochures and other educational materials.

Towing issues were also listed by many participants as an area in which they had experienced incidents such as parking issues, controlling caravan in strong winds, and moving off narrow bitumen roads safely. Towing emerged as an area in which a

majority of participants would like further education. The information participants had previously sought, came mostly from brochures and booklets and internet sites associated with state automobile clubs and government agencies such as transport departments. These sources were similar for where respondents would like to access more information. The internet was the most popular format for accessing information followed by written material e.g. brochures from government agencies, and state automobile clubs. The current findings suggest that the development educational material on safe towing and outback driving in particular would be beneficial to this cohort of travellers. As suggested as an outreach measure perhaps such brochures could be included with caravan or motor home registration renewals.

Fellow travellers were listed as a primary source of information in most areas, it is therefore very important that the right messages reach this cohort as it would appear that messages from fellow travellers may have a stronger impact than any other source. Perhaps road safety agencies can use the already established links between the nomads themselves to enhance and promote road safety messages within this cohort.

Conclusion

The current research is very much a small explorative study which was intended to give an initial overview of some of the road safety issues that may exist for grey nomads. As this is a growing sector of the population it important for agencies to be aware of potential risk factors for this population and to begin to develop education material that directly targets these risks. The current research indicates that there are three main area in which educational material needs to be developed: first aid and emergency procedures in remote areas; driving on remote and rural roads; and importantly a large focus on educating nomads on towing issues. The results suggest that the internet may potentially be a powerful tool in allowing nomads access to this information while travelling and as the need arises. There are also suggestions that government agencies could outreach to grey nomads who do tow caravans or trailers by raising awareness of towing issues by including such educational material in vehicle registration renewals.

The current research is a small beginning in understanding some of these issues. Future research is needed to explore road safety for grey nomads in much greater depth. Research which results in the development and evaluation of education materials designed to reduce risk in this population would be an important next step.

References

- (1) Ipalawatte, C., Carter, P., Heaney, L. & Lubulwa, M. (2005). A profile of travellers who used caravan or camping accommodation in Australia in 2003/04. Niche Market Report No. 6, Tourism Research Australia.
- (2) Prideaux, B. M., H. (2006). The changing profile of caravanners in Australia. International Journal of Tourism Research **8**(1): 45-58.
- (3) Maugeri, M. (2006). Hail the Grey Nomad. The Courier Mail, 29 September, 2006.
- (4) Onyx, J. Leonard, R. (2005). Australian grey nomads and American snowbirds: similarities and differences. Journal of Tourism Studies **16**(1): 61-68.
- (5) Onyx, J. Leonard, R. (2007). The grey nomad phenomenon: Changing the script of ageing. The International Journal of Ageing and Human Development **64**(4): 381-398.
- (6) Charlton, J., Oxley, J., Fildes, B. & Les, m. (2001). Self-regulating behaviour of older drivers. Road Safety Research, Policing and Education Conference. Melbourne.
- (7) Wood, J. M. (2002). Ageing, driving and vision. Clinical and Experimental Optometry **85**(4): 214-220.
- (8) Baldock, M., Mathias, L. et al. (2006). Self-regulation of driving and its relationship to driving ability among older adults. Accident Analysis & Prevention **38**(5): 1038-1045.
- (9) Parsonson, B. S., Isler, R.B. & Hansson, G.J. (1999). Ageing and driver behaviour at rural T-intersections. New Zealand Journal of Psychology **28**(1): 51-55.
- (10) Braitman, K., Kirley, B., et al. (2007). "Factors Leading to Older Drivers' Intersection Crashes." Traffic Injury Prevention **8**(3): 267-274.
- (11) King, M.J., Nielson, A., Larue, G. & Rakotonirainy, A (2007). Projecting the future burden of older road user crashes in Queensland. Proceedings of the Australasian Road Safety Research, Policing and Education Conference, Melbourne, November 2007.
- (12) Langford, J., Methorst, R. & Hakamies-Blomqvist, L. (2006). Older drivers do not have a high crash risk: A replication of low mileage bias. Accident Analysis and Prevention **38**: 574-578