Progression on our grey roads: A Queensland response to the proposed National Licence Re-Assessment Program for older drivers'

Authors: Laurie R Buys, PhD
Theresa L. Murphy

Centre for Social Change Research
Queensland University of Technology

Word count: 4,760 (excluding references)

Submitted19 December 2002
Revised October 2003

Abstract

Road safety and continuation of driving is increasingly becoming a priority issue for Australians, particularly as the rate of individuals entering the older age group is progressively rising. A uniform national approach to licence renewal based on evidence-based assessment is likely to be introduced across states in the near future. The purpose of this paper is to explore the issues that may arise in the transition to the new process. Forty-four adults over the ages of 65 years were interviewed. Over half the participants were drivers with the remaining having ceased driving within two years of the interviews. In addition, over half of the participants were residents within metropolitan areas in Brisbane, with the remaining residing in rural towns in Queensland. The results highlight the current lack of significant interaction between older drivers, their family, doctors and transport officials regarding driving assessment issues. In order to introduce an interactive system, considerable work will need to be done in order to actively engage older drivers in the process.

Progression on our grey roads: A response to the proposed National Licence Re-Assessment Program for older drivers.

With the proportion of older licence-holders expected to double within the next twenty years, in line with predicted older population growth, questions have been raised regarding the capacity of the current driver strategies to satisfactorily maintain the mobility needs of older drivers. At present, state authorities govern older driver re-licensing in Australia, employing a range of techniques that in practise, often fail to provide an accurate evaluation of a driver's fitness or ability to drive. That is, medical tests may not adequately identify cognitive or functional impairment and re-licensing or screening tests are mainly subjective, or do not adequately account for potential driver rehabilitation or re-training. Consequently, the current system may overlook "at-risk" drivers or generate a fear of licensing authorities that invokes premature driving. However in order to more effectively meet the needs of older drivers and the community, a national licensing scheme has been proposed by Fildes, Pronk, Langford, Hull, Anderson and Frith (1999). This proposed national scheme provides a model for driver screening, assessment and rehabilitation (or re-training) aimed at assisting older drivers to maintain safe driving capacities.

This study is a qualitative research project that investigated the experiences of a group of older drivers and ex-drivers from metropolitan and rural areas, with regard to driving and driving cessation within the current system in Queensland; and considers whether licensing authorities and the community, provide an environment that facilitates older driver mobility. The participant stories highlight a range of issues, both positive and negative, that may prevail if a uniform national approach is implemented in Australia. The purpose of this paper is to explore issues that may arise in the transition from a largely non-participatory system to a participatory, or community-based system. A better understanding of these processes in turn, may assist transport authorities to develop strategies that might better prepare older drivers for the transition.

Literature Review

A review of current transport policies, reveal that all states, with the exception of Victoria and the Northern Territory, administer age-based re-assessment from the age of 70 (South Australia and New South Wales) or 75 years (remaining states). Annual road tests are compulsory in New South Wales and Tasmania from the age of 85 years, and are conducted upon recommendation in all other states, with the exception of South Australia who have none. In most states, 'fitness to drive' is determined via an annual vision test and medical reports, though in Victoria and the Northern Territory reviews are conducted only upon referral.

Although road safety strategies facilitating older drivers are pervasive within most Australian states, some states offer little support and accessibility to education and training resources are varied. For example, while Victoria and

New South Wales provide specialised brochures that target the specific needs of older drivers (e.g. Seniors Information Kits), availability of brochures in Queensland is more limited. Similarly, motorists in all states, apart from Queensland and the Northern Territory, have access to Older Driver Handbooks, some newly issued (i.e. South Australia's), which promote risk reduction and self-help strategies.

At present, all licensing bodies rely heavily upon the self-regulation of older drivers; that drivers modify their driving behaviours to compensate for functional decline. While older drivers may be the best assessors of their own abilities, factors such as a lack of insight or a poor perceived level of competence, often hinder this process (Dobbs & Dobbs, 2001; Marottolli, Ostfeld, Merrill, Perlman, Foley, & Cooney, 1993). Despite the operation of a number of risk-reduction campaigns (e.g. Queensland's Years Ahead Program, Victoria's Safe Drive Program) to raise the awareness of safety issues for older drivers, most programs are largely voluntary in nature, have limited accessibility (Bishop, 2002), or are past due (Queensland Government Department of Families, 2001). Consequently, analysts call for alternative referral systems to target those drivers who are more reluctant to participate (ATSB, 2002; Carr, 2000; DTLR, 2001).

While medical practitioners and significant others may be best situated to provide early and cost-effective identification of persons who are at-risk for declining driving ability (Burkhardt, Staplin, Lococo, Stewart, & Decina, 1999; Dobbs, 2000; Guthrie, 1999; Langford & O'Leary, 1997; Marottolli et al, 2000; Peel, Stienberg, & Westmoreland, 2000; Steinfield, Tomita, Mann & DeBlopper, 1999), there are many barriers to this level of intervention. For example, even though community knowledge of processes such as recognition of "at-risk" drivers or disclosure is limited, most people, including professionals, when they are knowledgeable are generally reluctant to 'turn in' older drivers (NHTSA, 2001; Whitely, 2001). In addition, while motorists report being positive towards receiving direction by transport, law and medical authorities, they are less optimistic regarding the intervention by or motivation of family members (Burkhardt et al, 1999; Rabbitt, Carmichael, Jones, & Holland, 1996).

In Victoria, licensing authorities frequently collaborate with concerned law enforcement bodies and significant others (medical practitioners, family etc) when dealing with older driver issues, however, the extent to which other states endorse these practices are uncertain (Fildes et al, 1999). Furthermore, while authorities in all states have access to national medical fitness guidelines (Austroads, 1998), Victoria employs significantly greater strategies to encourage and assist medical practitioners in their appraisal of older road users (Australian Transport Council, 2001; Darzins & Sloan, 2001; Fildes, 1997). However, in reality, not all physicians believe they have the time or capacity to take on the role as driver evaluator. "Medicos can assess vision and other medical conditions related to driving, but there is a need for an independent arbiter to judge driving skills". . . we need "a system where all drivers, both young and old, who represent a risk on the road, can have a comprehensive assessment of their driving skills" (Bishop, 2002).

Overall, there is some doubt as to the efficiency of present-day older driver re-licensing considering the proportion of older drivers involved in road fatalities. For example, fatalities for older drivers, aged 60 years and over, have increased by 5.5% in the 12 months to 2002, as compared with all other age groups, where fatalities have decreased or remained the same (ATSB, 2002; Boswell, 2002). Interestingly jurisdictions such as Queensland, which apply more stringent mandatory testing measures, have higher fatalities than states which rely on less mandatory tactics. For example, older drivers over the age of 60 (18.6 percent of the Queensland driving population) account for 47 percent of all fatal crashes, with figures rising to 76 percent for 70-79 year olds, and 82 percent for drivers over 80 (Bishop, 2002). Whilst many assert that older drivers are over-represented in accident figures, given a higher fatality risk due to frailty (Elliot, Elliot, & Lysaght, 1995), once driving exposure is quantified, trends continue to demonstrate the rising vulnerability of drivers (Charlton, Oxley, Fildes, & Les, 2001; Cobb, 1998; Dobbs, 2000; Langford, 1995).

The introduction of a uniform approach based on evidence-based assessment, however, may promote a more positive outlook for the future mobility and safety of older drivers in Australia (Austroads, 1998; Fildes et al., 1999). Derived from the US model (Staplin, Lococo, Stewart, & Decina, 1998), the Australasian Older Driver Licence Assessment Program (Langford, 2002) expects to provide a more independent and reliable assessment of older driver performance by utilising empirically validated assessment components and related training programs.

The future of older driver re-licensing under a national re-licensing model expects to reduce older driver crash rates by targeting those most “at-risk” through more intensive assessment processes. In essence, the model operates along a continuum of driver screening, assessment and rehabilitation (or re-training) procedures, where the community acts as the chief point of referral. A framework of the model, as set out by Langford (2002) and Fildes et al (1999), comprises the following:

1. A Notification process: Level one assessment

Where, licensing authorities contact "at-risk" drivers whose ability to drive safely is in doubt. Referral at this point occurring either voluntarily, when a driver doubts their own ability to drive safely, or upon the recommendation of community members (when concerned family or others question safe driving ability), and professionals (when health or other professionals perceive the driver to be a “crash risk”). Authorities identify those most at risk according to set objective criteria before community referral is accepted (to rule out subjective or dubious motives).

2. A ‘Screening’ process: Level 2 assessment

Where, upon the identification of “at-risk” drivers (as determined by set objective guidelines), or at any stage of the re-licensing program, case officers administer functional-based tests for cognitive and perceptual ability and initial fitness (as determined by medical practitioners and specialists). If drivers

pass examinations, there is an agreed period of licence renewal, and if drivers fail, they are required to relinquish their licence and participate in counselling (regarding future mobility options). Test results at this stage, however, are not resolute, as further assessment, options and an appeal process are available.

3. Specialist Referral and Assessment: Level 3A assessment
Following initial screening or medical examinations, case officers may recommend further assessment by medical or other health specialists. At this point, if findings indicate the driver is unable to continue driving safely, licence cancellation, or suspension, pending re-assessment occurs, if there is a temporary condition amenable to treatment. If results indicate no medical basis for impairment or poor screening results, an on-road driving test is required.

4. On-road Driving Assessment: Level 3B assessment
Where, the successful completion of an on-road test warrants licence renewal or the provision of a restricted licence (accounting for other test results), and the failure of on-road and screening tests require licence revocation. However, drivers at this stage may be further referred for rehabilitation and re-training, with the possibility of licence renewal upon a satisfactory re-assessment.

5. Driver Rehabilitation and Re-training
At any stage in the re-licensing process, drivers may be required to participate in rehabilitation and re-training, with medical treatment of underlying conditions (via rehabilitation), or specialised re-training in driving skills, with occupational therapists (which may include specialised vehicle adaptations) or driving school instructors.

While licensing authorities in Victoria and New South Wales already employ many of the principles encapsulated within the Older Driver model (community referral, driver education), most other constituencies rely on traditional age-based assessment alone. With the expected implementation of the model in two, undefined, Australian jurisdictions in the near future and the completion of the third trial phase of the model in New Zealand by 2003, there is some question as to how readily drivers who are currently assessed under regulatory directives, will adapt to a more collaborative approach to re-licensing.

Method

Towards the end of 2000, a series of semi-structured telephone interviews were completed. The aim of this methodology was to elicit narratives or storied accounts of the meaning of driving for older motorists, the processes involved under the current system and those leading up to, and upon, the cessation of driving. The type of narrative obtained was a personal experience narrative (Denzin, 1989) based on anecdotal, everyday, commonplace experiences of older people.

Four small groups consisting of metropolitan drivers and ex-drivers and rural drivers and ex-drivers were interviewed. To be eligible for participation respondents were required to live independently, have been a driver during most of their adult lives and be over the age of 65 years. Respondents that comprised the urban driver group replied to notices placed in libraries and churches and respondents from the country group were sourced from parish lists, older people's organizations and relevant community organizations that work with or for older people.

Table 1 provides background information about those individuals invited to participate in the study. Almost all of the participants reported their health as being average to excellent.

Table 1, Participant description

	Female (number of participants)	Male (number of participants)	Age Range	Marital Status
City drivers	7	7	65 – 85 years	50% married
City ex-drivers	7	5	71 – 90 years	58% widowed
Rural drivers	8	4	71 – 90 years	58% married
Rural ex-drivers	3	3	65 – 90 years	66% widowed

Respondents participated in a one-hour in-depth telephone interview with a trained research assistant. Before the interview, each participant was sent a letter explaining the purpose of the research, the voluntary nature of participation, and the confidential aspects of the research. As well, participants were assured that at any time they could withdraw from the project or choose not to answer questions. A short questionnaire, consisting of demographics and open-ended questions on the meaning of driving, was used to guide the semi-structured interview.

All of the interviews were audio taped and later transcribed and analysed by the researchers. In the preliminary reading of each transcript, descriptive categories were used to code sections of each informant's narrative. Following Seidman's (1998) suggestions of analysing thematic connections, the researchers searched for connecting issues among categories and connections or themes between the various categories. Thus, each participant's narrative was analysed and themes identified that expressed similar problems, concerns, differences and experiences of members of the research cohort. In the following section each of the themes will be discussed, including justification, preservation, authorisation, intervention, transition from driver to ex-driver and cessation of driving.

Results

Justification

A common theme among drivers was their desire to retain their licence for as long as possible, which was observed throughout the driver testimonies in many ways. First, drivers constantly justified their driving performance and ability, often equating experience with a greater driving knowledge, *"I think that you are putting experience in the bank all the time and as an older and experienced driver you look further ahead and drive more sensibly, you can almost foresee possible dangers because of long experience of driving" (City Driver*). Namely, that greater knowledge afforded older drivers a "second sight", or an instinctual advantage over younger drivers.

Secondly, all drivers practiced some form of self-regulation, or modified their driving to compensate for declining abilities, which included avoiding driving at night, in adverse weather conditions or peak hour traffic, as well as restricting their travel to shorter and more familiar routes. Lastly, as a precautionary measure, drivers often renewed their licence for as long as authorities would allow, *" I went down the other day and they gave me a new five year license and I am going to wear that one out and buy another one" (City Driver).*

Preservation

All respondents were preoccupied with the maintenance of safe and independent mobility, and there was a collective response that poor alternative transport options (i.e. cost, access and availability) or factors such as unfamiliar road regulations and the limited availability of driver re-training, often hindered the preservation of an independent driving status.

"I think probably we need a little booklet with all the rules and everything and sort of test ourselves, and be more aware and update" (City Driver)

"There are a number of things that you lose as you get older your reaction time and response time, which you can hone up on and regain some of that stuff for a period of time, before it deteriorates again, that's what many older drivers need to practice" (City Driver)

Consequently, respondents often raised the prospect of safety campaigns to target the diverse skills of older drivers, for example, urban drivers in contrast with rural drivers, or older drivers as opposed to younger drivers. The common perception, that the introduction of such measures would allow older drivers to retain their licence for longer.

"Anyone who drives in the country and hardly ever goes into the city, they get a bit back behind in the rules of the road in traffic" (Country Driver)

"I think you are aware of the situation more when you're a bit older. You do not see many elderly drivers having accidents do you. No it's only the young ones that are full of alcohol and a bit of drugs, you know" (Country Ex-driver)

Authorisation

Although annual medical tests, as part of licence re-assessment, were commonplace, most questioned the reliability, or value, of these procedures for older drivers.

"If they gave written tests I am sure a lot of older people who don't know the rules of the road would fail. I would say probably 90% of the people my age would not pass the test unless they really got the book and swatted" (City Driver).

"I had my license renewed the other day, and they just wrote me out another one for five years, I think that is a bit sloppy. I think after 75 you have got to have a doctors certificate to say you are well enough to drive, that is fair enough but it doesn't mean to say you have still got reactions" (City Driver).

As a rule, there was minimal interaction between drivers and licensing authorities, with most drivers only contacting their transport department with regard to administrative functions such as licence renewal. For this reason many ex-drivers who saw few alternative options, or who were generally fearful of a distant authority (a view shared by drivers), often relinquished their licences prematurely.
"I made my decision a little early, but it is better to give the thing up on your own conditions than be forced to give it up, isn't it" (City Ex-driver)

"Oh, I gave my license up stupidly, when my husband died, I sort of felt that I was going to die too and I just gave up my licence and sold the car. I've regretted it ever since. Even if you had a restricted license you could drive around the town to do your shopping" (Country Ex-driver).

In contrast, there was a general observation that licensing authorities and policing bodies were more lenient in their assessment of rural drivers.
"An old lady in her 80's ran into me, she should not have been driving, but she was a woman on her own and I suppose she had to get to town of course to do her things. The police said she should not be driving, but I noticed they did not stop her, because she was still on the road after that" (Country Driver).
However, most agreed that the re-assessment of older drivers should be individualised and take into consideration the driver's dependence (i.e. to account for employed drivers), as well as functional ability.

Intervention
Overall, rural respondents were more satisfied with the level of advice received from their medical practitioners in comparison to the urban respondents who reported substantially less guidance from this source. An experience which was often disconcerting for the urban ex-driver group considering most had a serious medical condition leading up to, and at the time of, cessation.
"He didn't say anything. I always had to have tests to go for my license and had medication (Although doctor never talked about driving with MS)" (City Ex-driver)

"I thought the doctor would have said to me you better give that license up. He did not, he knew I did not have good eyesight, but he never once said anything about it" (City Ex-driver).

For the most part, drivers were dependent on informal supports for guidance, and though all drivers were receptive to the advice of family, they placed more credence on the advice of medical practitioners.
"I do not drive out of town now, my family kept making noises that I shouldn't drive to the coast or to Brisbane. So to keep peace I don't drive out of town" (Country Driver),

"Once I had reached 85 I had to go back and have my license renewed, but my son kept saying, look Mum, you are going to be 85, you will have to give it away. So I decided no, just to please my son" (City Ex-driver).

Similarly, there was a general reluctance for drivers to impose on fellow older drivers themselves, preferring to delegate this responsibility to the driver's family.
"Because we have had to encourage people to give up driving we know how painful an experience it is. It is like cutting off your right arm" (City Driver)

"I drove with a friend of mine and he jumped two red lights. Now I thought what do I do with this? How can I get the message across to him or to somebody through them? I rang his son and I said, look, I have just driven with your Dad and he has jumped the traffic lights twice and I do not know what to do, because he will kill himself. A couple of weeks later he said to me, did I ever tell you where my son lived. His son obviously got on to him. He did not admit it to me but I know now that he did. We are still friends. I didn't want to lose his friendship" (City Driver).

Transition from driver to ex-driver
While drivers often addressed the inevitability of driving cessation there was little evidence of planning for it over the long-term, most relying on their perceived health or confidence as indicators of their ability to drive.
"I think you need sharp mental reflexes and you wouldn't want to have a club left foot or anything like that, so long as you are in reasonable physical condition I see no reason why anyone shouldn't drive a motor car. If I did stupid things, if I was a potential risk on the road, if I realised in my own heart that I reached my use by date, because you are getting too many narrow shaves, then no matter how good my eyesight is or my arms are, it is time to give up driving" (City Driver).

"If I found things were happening that shouldn't be happening, I would say right. But there are some old people who try to hang on because they have no other way of getting around. Hang on as long as they can drive a car" (Country Driver).

That is, when the time came to consider driving cessation the majority of drivers were confident that their own judgement would prevail, *"I will be the best judge to do that. If I have some uncomfortable feeling then I will give it away " (City Driver)*

"*I started driving very early, I drove all of my life, and I have had a very wide experience so I think I can assess myself reasonably well. If I find that I am*

making irrational decisions then it is time to think very seriously about do I continue or do I give this thing back and get a taxi" (City Driver).

Cessation of driving

Cessation of driving for most drivers and ex-drivers not only symbolised the passing of an independent life stage, "*There are some old people who try to hang on because they have no other way of getting around. Hang on as long as they can drive a car" (Country Driver),* but also the reflection of a time where they had greater control over their lives. *"I guess that overriding fear of losing your license, of somebody saying, you are not good enough" (City Driver*)

"Don't give up easily, there have been times when I thought; oh, I should give it away, but do not do that, because you'll curtail your goings out and coming back. It is so much nicer to be independent, than to be always dependent on somebody to take you somewhere" (Country Driver).

Conclusions

The stories of this group of older drivers reveal the problematic nature of current re-assessment strategies in maintaining safe and long-term mobility of older drivers. Older drivers, in addition to researchers, question the reliability of a system that targets older drivers because of age and is punitive if they perform poorly under loosely defined assessment practices. While a uniform approach, such as the Australasian Older driver Licence Assessment Program, will encompass a more equitable model of re-assessment and a more accurate measure of functional ability, the successful application of a collaborative process, which relies on a greater level of interaction between older drivers and prominent stakeholders in the community, may be hampered by present-day limitations.

The new model places the onus of identifying 'at-risk' older drivers on the community and the older drivers themselves, as well as the success of interactions between key stakeholders during re-assessment i.e. the driver, licensing authorities and affiliated professionals (including case workers, medical specialists, occupational therapists, driving instructors and legal representatives). The process of re-licensing then, becomes dependent on the ability of each stakeholder to fulfil their obligations to older drivers and vice versa. In contrast, a review of the current system however, suggests that most drivers and community members (including professionals) avoid meeting their social responsibilities to older drivers. That is, the degree of interaction between older drivers and prominent stakeholders is poor and any formal support, inadequate.

In brief, the results from this study reveal that apart from annual medical assessments and periodic (up to five years) licence renewals, drivers rarely communicated with licensing authorities, preferring the advice and guidance of family members and medical practitioners. Within these relationships however, the degree of support was often intermittent (e.g. urban drivers often received far less support from medical practitioners) and the perceived authority of these relationships low. Hence, with few formal support

mechanisms in place, (i.e. re-training or education programs) drivers were largely left to their own devices, to self-regulate or self-modify their driving practices or abilities, as their own 'best judge'. However, these results are indicative of current obstacles to community intervention. Namely, that familial supports or medical practitioners are reluctant to intervene because of legal restrictions, a limited understanding of their role in older road user safety or unclear indicators of functional decline (Bishop, 2002; Darzins & Sloan, 2001; NHTSA, 2001; Whitely, 2000). Similarly, the perceptions of older drivers themselves may act as barriers, given that most drivers are wary of imposition by informal supports, including their motives and so forth.

Hence, strategists implementing a more collaborative approach to re-licensing, should first consider means of improving the relationships between older drivers and prominent stakeholders through the development of education or community campaigns similar to those in the USA (NHTSA, 2001), that clearly define the rights and responsibilities of older drivers and the community. Alternatively, researchers may further examine the strength of associations between older drivers and medical practitioners (and other professionals) within rural sectors, which prove to be more constructive towards older driver safety.

Further, a collaborative approach to re-assessment may see older drivers lose much of the autonomy they currently take for granted. For example, the adoption of a more commanding role by authorities and professionals (especially case workers), together with a collective referral of 'at-risk' drivers, may cause older drivers to experience a loss of control over their lives, or feel increasingly targeted because of their age. Subsequently, the apprehension many older drivers already feel towards authorities may increase, in effect amplifying premature cessation or an unsafe, and 'licence- preservation' mentality. In contrast, as drivers are chiefly concerned with preserving their driving status, the operation of driver re-training or re-skilling within the model may offset this perceived loss of independence, and drivers may perceive the implementation of such programs for what they are, a means to retain their licence more safely for longer (Dobbs & Dobbs, 2001).

Effectively, these mechanisms may also increase the incidence of planning and ease the transition to cessation. However, while it is apparent that the counselling process within the model, offers some resolution of alternative mobility options for older drivers, it is unclear how, if any, improvements may extend to ex-drivers. Thus, the extent to which the problems experienced by existing ex-drivers may be resolved or improved within this system needs further research.

References

Australian Transport Council (2001). *National Road Safety Action Plan 2001-2002*, Commonwealth Department of Transport and Regional Services, Canberra.

Australian Transport Safety Bureau (ATSB) (2002). *Australian statistics in brief www.atsb.gov.au*.

Austroads (1998). *Assessing Fitness to Drive*. Austroads, Sydney.

Bishop, C. (2002). *Age of survival.* The Road Ahead: RACQ April/May, The Road Ahead Publishing Company: Brisbane.

Boswell, R. (2002) Boswell cautions road users, particularly the elderly. *Press Release*, B35/2002, 23 April.

Burkhardt, J. E., Berger, A. M., Creedon, M., & McGavock, A. T. (1988) *Mobility and independence: Changes and challenges for older drivers*. Bethesda, MD: Ecosometrics Incorporated.

Carr, D. B. (2000) The older adult driver. *American Family Physician*, 61: 141-146.

Cobb, R. W. (1998) are elderly drivers a road hazard: Problem definition and political impact. *Journal of Aging studies*, 12, 4: 411-425.

Charlton, J., Oxley, J., Fildes, B., Les, M. (2001) Self-regulatory behaviour of older drivers. Paper presented at the *2001: Road Safety Research, Policing and Education Conference*, Australia, November.

Darzins, P., & Sloan, R. (2001) The “Safe-Drive Medical” Professional Education Program. *National Ageing Research Institute,* Melbourne.

Denzin, N. K. (1989). *Interpretive Interactionism*. London: Sage

Department for Transport, Local Government and the Regions (DTLR), (2001) *Road Safety Research Report No. 25*, November. UK.

Dobbs, A. R. (2000) Lessons learned through the development and implementation of an evaluation for medically at-risk drivers. *DriveABLE Assessment Centres*, Alberta, Canada.

Dobbs, B. M., & Dobbs, A. R. (2001) Improving the safety and the mobility of older drivers: A conceptual framework. Paper to be presented at the *2001: Road Safety Research, Policing and Education Conference*, Australia, November 19-20th.

Elliot, B., Elliot, D., & Lysaght, A. (1995) *Older Drivers Risks and Countermeasures: Source Book Report. CR 163,* Federal Office of Road Safety (FORS), Canberra.

Fildes, B. (1997) *Safety of older drivers: strategy for future research and management initiatives, Report No 118*, Monash University Accident Research Centre, Clayton, Victoria.

Fildes, B., Pronk, N., Langford, J., Hull, M., Anderson, R., & Frith, B. (1999) A national licence assessment program for older drivers in Australasia. *Insurance commission of Western Australia: Conference on Road Safety*, 1999.

Guthrie, M. (1999) *Development of an Australasian model relicensing procedure for older drivers*. National President Viewpoint: Age Concern New Zealand Incorporated. New Zealand.

Langford, J. (2002) *Older Driver Assessment Model Assessment Program, phase 3 (Implementation and evaluation of improved screening procedures for assessing older drivers performance levels)*. Austroads Project Update, Road System Safety, RS.SS.N.535.

Langford, J., & O'Leary, K. (1997) *Older Driver Safety Project: Final Report for Stage 1*. Road safety Branch, Department of Transport, 28 January.

Langford, J. (1995) Developing road safety measures for elderly drivers. *National Road Safety Research and Enforcement Conference, Fremantle, Western Australia*, 13 November.

National Highway Traffic Safety Administration (NHTSA) (2001) Solutions DOT HS 809 307, August 2001.

Peel, N., Steinberg, M., & Westmoreland, J. (2000) Transport safety for older drivers: A study of their experiences, perceptions and management needs. *Proceedings of the Road Safety, Research and Policing and Education Conference, Brisbane, November* (pp223-228).

Queensland Government Department of Families (2001) Our shared future: Queensland's framework for ageing 2000-2004, *Progress Report 2001*.

Rabbitt, P., Carmichael, A., Jones, S., & Holland, C. (1996) *When and Why Older Drivers Give up Driving*. AA Foundation for Road Safety Research, Age and Cognitive Performance Research Centre: University of Manchester.

Siedman, S. (1998) *Contested knowledge: Social theory in the postmodern era*, Blackwell: Malden: Mass.

Staplin, L., Lococo, K. H., Stewart, J., & Decina, L. E. (1998) *Safe mobility for older people notebook*. Interim Technical Report Contract DTNH22-96-C-

05140. Office of Research and Traffic Records, National Highway Traffic Safety Administration, Washington DC.

Steinfield, E., Tomita, M., Mann, C., DeBlopper, W. (1999) Use of passenger vehicles by older people with disabilities. *The Occupational Therapy Journal of Research*, 19, 3: 155-68.