

## Use of Alternative Forms of Transport in Older Drivers in the Suburban Outskirts of Sydney

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### Abstract

Retirement from driving is a major life decision and can result in loss of independent mobility. We investigated the impact of an individualized safe mobility program on alternative transport use among 380 drivers aged 75+ years resident in the suburban outskirts of Sydney in a RCT. The use of alternative transport was low, regardless of public transport accessibility and did not increase with the Behind The Wheel program which provided individual advice about transport. This study suggests that it is difficult to shift patterns of transport use amongst residents of outer suburban areas who rely on driving for transport.

### Background

Many older Australians rely on driving as their primary mode of transport and the numbers of licensed drivers in older age groups are increasing rapidly.(Bureau of Infrastructure 2014) Research in Australia and other highly motorised countries such as the US has consistently shown that older driver don't plan for retirement from driving, prefer door to door transport and demonstrate low uptake of public transport services.(Kostyniuk and Shope 2003) We delivered an individualised safe transport program, the Behind The Wheel program(Coxon and Keay 2015) which included practical solutions and planning for use of alternatives forms of transport including public transport.

### Method

Licensed drivers, aged 75 years or older, who spoke English and who were resident in four local government areas in northwest Sydney were recruited to participate in a randomised controlled trial evaluating The Behind The Wheel program.(Keay, Coxon et al. 2013) The participants were randomly allocated to the Behind The Wheel program (intervention) or usual practice (control) with 190 in each group. The Behind The Wheel program was tailored to the individual driver according to the stage of their involvement in self-regulation of driving and delivered over 2 sessions in the participants own home. An inventory of usual trips for the study participant was taken at the first visit. On the return visit, a package of information was provided with available alternative transport in the local area which matched the desired trips. The participants were encouraged to select preferred alternatives and gain familiarity, develop skills and gain confidence in their use. The participant was given the opportunity to develop a safe mobility plan and retirement from driving plan.

The residential address of each participant was allocated a score (0-3), this describes the percentage of residents who can reach this address using public transport in within 45 minutes during the morning peak hour (0=<5%, 1=5-10%, 2=10-15%, 3=>15%). Self-reported trips taken in the last month using alternate transport including bus, train, taxi, and community transport were an outcome measure and recorded at baseline and the 12 month follow-up assessment. Return trips were scored as two trips and total trips summed. Generalised linear models were used to investigate the influence of the Behind the Wheel program and transport accessibility on use of alternative transport, adjusted for transport accessibility, age and sex.

## Results

A total of 380 participants aged 75 to 94 years (mean:80±4) enrolled in the study between July 2012 and October 2013. More males (61%,230/380) were enrolled than females (150/230). There was minimal loss to follow-up (4%,14/380) and a few (3%,10/366) ceased driving during the trial. The public transport accessibility was generally low 300/380 scored 0, 75/380 scored 1 (2 scored '2' and 1 scored '3') and this was collapsed into 0 or 1-3 for analysis. The reported number of trips was a median of 2 per month but highly varied with average number of trips 4.7±8.0 and a range of 0-56. The number of trips was the same ( $p=0.9$ , GLM) in the intervention (4.6, 95% CI 3.4-5.9) and control groups (4.5, 95% CI 3.3-5.7) and those who lived in a home with  $\geq 1$  transport access (4.62, 95% CI 2.8-6.4) compared to 0 transport access (4.5, 95% CI 3.6-5.5). There was no difference with age but men used more alternative transport ( $p=0.046$ ). Men took 5.4 trips per month (95% CI 4.2-6.7) and women took 3.7 trips per month (95% CI 2.3-5.1).

## Conclusions and Discussion

This cohort of older drivers did not make many trips with alternative forms of transport and this was unchanged after participating in the Behind The Wheel program or influenced by accessibility of alternative transport. The low uptake of alternative transport may be a reflection of the strong preference for driving. Uptake was higher amongst men.

## References

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