

## **Electric vehicles and the safety of pedestrians who are blind or vision impaired**

### **Vision Impairment**

It is estimated that there are 24,900 people in Western Australia who, due to a loss of sight and inability to see normally when wearing glasses or contact lenses, are blind or vision impaired. This is approximately 1.36% of the Western Australian population. *The majority of these people are 65 years old or over (63%), almost 32% are between 18 and 64 years old, and 5% are children, that is, 17 years old or younger.*

Between 1998 and 2016 the number of people who are blind and vision impaired in Western Australia is estimated to increase by 57%. *With an aging population, 77% of this growth is expected to occur amongst people aged 65 and over.*

### **Organisational Background**

The Association for the Blind of WA is the principal provider of services to people with vision impairment in Western Australia. For 90 years it has been providing a wide range of services aimed at maximising the quality of life for people who are blind or vision impaired. Independence is a significant issue for most people with a vision impairment. It is important to be able to do the things you want to do, in your own time, without being dependent upon the help or support of others.

### **Mobility**

One important service offered by the Association for the Blind is mobility training. Specialist mobility instructors assist people who are blind and vision impaired to use aids, such as a cane, guide dog or electronic device, to help them confidently move within the built environment. This training places great emphasis on safety.

When training people who are blind or vision impaired to cross roads, Mobility Instructors direct their trainees to actively listen to the traffic. By paying particular attention to engine noise, people who are blind or vision impaired are able to make reasonable assumptions about the direction and speed of approaching vehicles and then make judgements about whether and/or when it is safe to cross the road.

### **Electric Vehicles – Safety Concerns**

The advent of the electric vehicle<sup>1</sup> addresses a number of important ecological, health and economic traffic-related issues. They include fuel consumption, engine emissions and air pollution, noise pollution and operational costs.

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<sup>1</sup> Including hybrid cars

However, it is these vehicles' extremely low volume of operational noise (described by many as "silent"), that presents a significant problem regarding pedestrian safety. Pedestrians who are blind or vision impaired will not have any useful auditory cues upon which to draw when making a decision to cross a road. This makes these pedestrians highly vulnerable, particularly in locations where there are no controlled intersections to assist their safe crossing. Pedestrians who are blind and vision impaired will be forced to become even more reliant on the awareness and consideration of drivers, which has the potential to further limit their safe and independent travel.

### Recommendations

The Association strongly recommends that, with government support:

- manufacturers consider ways in which to make their electric vehicles more audible to pedestrians; and
- manufacturers place awareness-raising messages in conspicuous places within their electric vehicles reminding drivers to be alert for and give way to pedestrians – particularly those who are vulnerable due to age or disability; and
- organisations purchasing electric vehicles bring pressure to bear on manufacturers to address the dangerously "silent" operation of their vehicles; and
- organisations purchasing electric vehicles take effective steps to make their drivers aware of the danger to pedestrians - particularly those who are vulnerable due to age or disability; and
- transport-related organisations lobby electric vehicle manufacturers to address and educate electric vehicle drivers to be aware of this safety issue; and
- organisations responsible for either issuing drivers licences and/or licensing electric vehicles, educate drivers of such vehicles about this safety issue and the need to give way to pedestrians - particularly those who are vulnerable due to age or disability.

### Contact

Carol Solosy  
Manager: Library, Information and Research Services  
Association for the Blind of WA (Inc.)  
PO Box 101  
VICTORIA PARK WA 6979

Tel: (08) 9311 8202  
Fax: (08) 9361 8696  
Email: [carols@abwa.asn.au](mailto:carols@abwa.asn.au)