

Pedestrian safety – an inclusive approach

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Abstract

Pedestrian injuries are under-reported where accepted definitions of crash and collision require the involvement of a motor vehicle. Compilation of data from all sources would provide more accurate information for research and decision making. The lack of insurance support for a pedestrian or cyclist injured by a bicycle needs to be addressed. The practice of combining pedestrian and cyclist programs does not serve pedestrians well. Specific pedestrian representation at senior levels could drive the culture shift necessary to improve the safety of pedestrians of all abilities. Photographs illustrate the difficulties encountered by people who are blind or have low vision on the road system and some examples of good practice.

Key Words

Disability, pedestrians, pedestrian-cyclist injury, vision impairment, representation.

Introduction

As an Allied Health Professional, it has been a long journey for me to gain an understanding of the machinations behind the road safety industry. My experience of working alongside people with a vision impairment since 1976 and membership of several Community and Council committees has shaped the observations and suggestions in this Paper. The situations described are for the State of Victoria, which may be different in your location, however the dangers and difficulties for pedestrians who have a vision impairment are likely to be similar.

Lack of specific representation for pedestrians, or those with a vision impairment

The Victorian Department of Transport received its Walking and Cycling International Literature Review¹ in 2009, to assist professionals and researchers understand the barriers to walking and cycling and understand infrastructure and policy supports. The authors reviewed 300 publications judged to best address the questions of the walking and cycling branch. Significantly, the fifteen recommendations and Executive Summary do not include the words disability or vision impairment.

Austroroads Engineering Guidelines Part 6A for shared paths is based on input from its members' representatives. Part 6A had no input from any Victorian blindness organisation, possibly none from those in other States and none from the Pedestrian Council of Australia. Bicycle and pedestrian programs and disability access have long been combined at VicRoads – all three are in one department. The potential for a conflict of interests, between pedestrian and cyclist programs, is well documented². Combining user groups may be expedient but not properly serve each group.

The first meeting of the Victorian Pedestrian Advisory Council (VPAC) was in March 2012. The planned June and September meetings were not held, therefore VPAC was unable to

engage in the Road Safety Strategy for 2013-2022. By contrast, a succession of National Cycling Strategies since 1999 has influenced local Council, Shire, State, Territory and Federal departments to promote cycling through a suite of programs and infrastructure projects.

Active Transport initiatives also link pedestrians and cycling despite the need for all paths to remain safe areas for pedestrians. Interestingly, cyclists are not linked to motorcyclists, yet the difference between them is now 250watts bicycles and 125cc mopeds. Calls for the identification of cyclists have been rejected as impractical and not cost effective. However the \$60 levy on motorcyclists funds initiatives for their safety.

Providing safer infrastructure is only one aspect of disability issues. A culture of genuine inclusion is also required. The late author of ‘You Owe Me Dinner’³, Jim Stallard, was a pedestrian and a driver. He also had diabetic retinopathy, partial quadriplegia and double amputations. He wrote convincingly and with bold humour why people with a disability have the right to a seat at the table.

Unrecorded pedestrian injuries

Unless pedestrian injuries on the road system are recorded accurately, their frequency and causes will not be properly addressed. Current practices of gathering data appear to be either incomplete or not coordinated and some definitions exclude events of pedestrian injury.

An OECD International Transport Forum Report⁴ describes the difficulty of collecting and exchanging data due to inconsistencies in definitions. Consistency in the criteria for ‘conflict’, ‘collision’ and ‘crash’, for example, is needed. Conflict between a pedestrian and a cyclist is not recorded as a collision. There may be a lack of public awareness that a bicycle rider in an accident causing injury is required to report their name and address to the nearest open police station. VicRoads’ Road to Solo Driving handbook provides comprehensive information about first aid and the rules and responsibilities for drivers involved in a ‘crash’. However the reader must search elsewhere, in Section 61A of the Road Safety Act 1986, to learn which responsibilities apply to riders.

In March 2013 while still dark at 6:30 am, a schoolteacher waited for a car’s headlights to pass before crossing a suburban road, unaware of a bicycle travelling behind the car. He was struck by the bicycle, thrown some distance onto the roadway and was still unconscious when the ambulance arrived. He was admitted to hospital, discharged three days later and required ophthalmologist care for affected and blurred vision that lasted three months. The author’s enquires in August 2013 confirmed the local Police had no record of this incident.

A pedestrian in Melbourne, who stepped out from a café door, was hit by an adult cycling illegally on the footpath. The pedestrian required facial stitches by his local doctor. The cyclist did not stop to provide his details or render assistance. Notification by General Practitioners of serious injury on paths and roads would assist to record the frequency of such conflicts. Past research (if based on incomplete data) suggesting that pedestrian-cyclist conflicts are rare² would be misleading. Consistent definitions and improved compilation of data within Australia would improve its accuracy and assist in comparisons with other OECD countries.

An injured pedestrian or cyclist in the two situations described above is not eligible for support from Victoria’s Transport Accident Commission (TAC). Under the Transport Act

1986⁵ a bicycle is not considered to be a motor vehicle. It is also worth noting that the new National Disability Insurance Scheme will only register people under the age of 65 years and only if the disability is permanent.

Pedestrian injury related to infrastructure

Poor surfaces on paths and roads are a hazard for all pedestrians, but especially for the elderly or those with a vision impairment. The frequency and causes of falls is worthy of investigation. Adequate funding for paths and maintenance could reduce both the human misery of injury and costs to the Health Department. Falls may account for up to 75% of pedestrian injuries in public spaces⁴. Those that occur on roads, paths and public transport could be analysed against road safety funding. The submission from Victoria Walks to the Road Safety Strategy 2013-22⁶ calls for the Minister for Health and the Minister of Planning to sit on the Ministerial Council for Road Safety.

The importance of accurate statistics cannot be over emphasised. They will underpin Policy, Road Rules, education programs and resource allocation. Reporting serious injuries should be viewed as a high priority.

Lack of inclusive consultation

Few pedestrian advocates knew, without a seat at the table, that one clause of the proposed amendments to National Road Rules in 1999 would reverse the prohibition, and automatically permit, cycling on all footpaths in Victoria. Swift advocacy for the safety of pedestrians, especially those who are blind or have low vision, was instrumental in changing the Minister’s decision at that time.

Discussions in 2013 to increase the age of child footpath cyclists in Victoria, from age12 to age16 years, were also discovered through networking rather than by invitation. The Council for the Ageing, Blind Citizens Australia and Vision Australia had not been notified of initial discussions, despite demonstrating strong interest in the topic in 1999.

The Victorian Government made amendments to the 2009 Road Safety (Road Rules) in September 2012. They allow Pedalecs (a model of electric bicycle) to be used wherever a bicycle may be legally used in Victoria. Until the amendment, motorised bicycles could not have any type of motor exceeding 200watts. A switch on a Pedalec will engage its 250watt electric motor to reach a speed of 25 km/h if the rider continues to pedal. Higher speed is possible, as for other bicycles.

Enquires to the Victorian Government, regarding community consultation before those amendments were announced, revealed the reform reflected a change already made in the Australian Design Rules about requirements for importing them. The Minister for Road’s reply advised consultation “had been undertaken at the time with road user groups, bicycle groups, Police, various relevant State and Territory departments and other stakeholders”.

Stakeholders for pedestrians – such as the Pedestrian Council of Australia, Victoria Walks and Vision Australia – were not alerted to those consultations and therefore did not provide input. At approximately double the weight of a traditional bicycle (23-kg), injuries to pedestrians from a Pedalec are likely to be more severe.

Melbourne’s Swanston Street bicycle corridor, described as causing confusion^{4Fig13}, created risks for pedestrians stepping out from the tram, especially those with a vision impairment. Belated discussion with the City of Melbourne uncovered the unrealistic expectation that disability agencies would be able to notify people who would be affected by this new risk.

Councils can lodge a Disability Action Plan with the Human Equal Rights and Opportunities Commission. Having Advisory Committees is optional. Seeking advice from them is also optional. Projects in diverse departments across a large Council may not reach an Advisory Committee for timely comment. Similarly to comments provided in submissions for any issue, advice may not be acted on for a variety of reasons. Advice, similarly to on-road Advisory Signs, is not enforceable and can be ignored.

The partnership logos on VicRoads July 2013 Sharing Roads and Paths brochure demonstrate the current shortfall in pedestrian advocacy organisations. Six of the brochure’s fourteen supporting partners are cycling organisations. One is pedestrian. Repeated phrases in the brochure to “look out for bicycles”, to “expect to see bicycles” and to “make eye contact at intersections” are meaningless to a pedestrian who is blind or has low vision. Furthermore, a driver or rider assuming eye contact or that a pedestrian looking towards a car has seen it, can be a dangerous mistake. The brochure was a lost opportunity for public education about the difficulties vision impaired pedestrians experience in sharing roads and paths. Organisations for pedestrian safety are needed, with resources to equal the achievements of the Amy Gillett Foundation, Bicycle Victoria and others.

Examples of hazards for vision impaired pedestrians

Monash University Accident Research Centre’s survey of vision impaired pedestrians⁷ reported the majority were least confident when interacting with electric vehicles and cyclists; that the issue needed consideration in future as the proportion of electric vehicles increased and cycling was promoted. A significant finding was that 1 in 12 vision impaired pedestrians in the study reported being hit by a car or bicycle in the previous 5 years. In the author’s experience, pedestrians with low vision are frequently unable to detect a thin, solo, moving bicycle at all, or find them more difficult to detect than a car. People with severe vision loss are very dependent on audible motor clues, which is exactly their difficulty when hybrid or electric vehicles approach in silence.

After being shown on-site some of the hazards within a Shared Road project, a Council traffic engineer commented to the author that strategies for pedestrians with a vision impairment were not included in his engineering studies. Below is 1 photograph of the 14 shown at the Conference and described in the Appendix, providing a brief explanation of situations faced by pedestrians who are either totally blind or rely on residual vision. Further information about the skills they use to travel independently, can be found in Maplesden, 2012⁸.

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Summary

Improved methods of gathering statistics of pedestrian injury on the road system are needed and consistent definitions of collision and crash which do not exclude pedestrian injury events. Targeted research is needed to update data for decision makers. A National Walking Strategy is required and the current shortfall of pedestrian advocacy organisations (compared to other road users) addressed. Specific representation, for example when Engineering Guidelines are changed, is needed. Specific representation should be required whenever decisions that will affect pedestrians are discussed, such as amendments to increase Pedalec use. The lack of insurance to cover injuries to third parties by “specified vehicles” (bicycles) needs to be addressed by an amendment to the Transport Act 1986.



Appendix

- 1 Work sites must provide an alternative route accessible to all pedestrians. Suitability of signage should be checked on-site; audit the permit conditions.
- 2 Fear that slip lane traffic will not stop, can prevent access to a refuge island with the call button. Silent electric or hybrid vehicles can be mistaken as a safe gap in traffic noise, by a pedestrian with a vision impairment.
- 3 Transferring on-road rules and controls of behaviour to pedestrian areas demonstrates an assumption that is not universally appropriate. Dogs can not understand painted lines, symbols or signage. Straying into ‘territory’ while using a white cane or Seeing Eye Dog is quite possible.
- 4 Pram ramp entrances must not direct pedestrians to the centre of a roundabout. Alignment with the refuge is needed, also aligned TGSI with the refuge and footpath.
- 5 Pro-active reporting of potential hazards to Council Officers is a culture to encourage. The level of ‘difficulty walking’ to support ownership of a mobility scooter may be a

decision best given to General Practitioners. Speed and behaviour of mobility scooter users are the important issues. A legal speed of 7k/mph should be adequate (not 10).

- 6 Lack of contrast on step edges is dangerous. Painting steps edges or tripping hazards with a stripe of contrasting colour can highlight their location. Maintenance of paintwork is important.
- 7 Planning permits should include requirements for safe pedestrian designs in car parks such as physical separation from traffic and paths with a different colour and surface.
- 8 Installation of enforceable ‘Dismount’ signage should be standard procedure where path widths on signed networks do not provide enough space for passing safely.
- 9 Concerns raised about inadequate path width for three user groups are not addressed by describing a Shared Path of less than 3M as a local access path.
- 10 Yellow TGSIs on black asphalt provide good contrast; tiles that start at the building line cannot be missed; a white cane’s tip locates the curb drop off.
- 11 Poles installed within a pedestrian crossing are obstacles. TGSIs do not fix poor design.
- 12 The ‘audible’ ticking and the ‘tactile’ pulse device on the traffic light pole should be positioned close to the pram ramp where pedestrians wait, ideally within hand reach.
- 13 Safe work practices do not stop for Smoko, they are necessary to prevent accidents at any time.
- 14 Stairs that change direction must provide adequate space on each step for the pedestrian’s next footfall. Rails should match the direction of steps.

References

1. Krizek K, Forsyth A, Baur L, Walking and Cycling International Literature Review – Final Report (2009). Department of Transport, Victoria, Australia.
2. Ker I, Huband A, Veith G, Taylor J, Pedestrian-Cyclist Conflict Minimisation on Shared Paths and Footpaths. Austroads, Sydney 2006.
3. Stallard J, You Owe Me Dinner. CBM Australia, 2010. ISBN: 978-0-646-54193-8.
4. ITF (2012) Pedestrian Safety, Urban Space and Health, OECD Publishing <http://dx.doi.org/10.1787/9789282103654-en> accessed August 22, 2013.
5. Transport Accident Commission, <http://www.tac.vic.gov.au/about-the-tac/legislation-and-regulations> accessed 23 August 2013.
6. Rossiter B, Victoria Walks. October 2012 Victorian Road Safety Strategy 2013-2022, <http://www.victoriawalks.org.au/submission> accessed 23 August 2013.

7. Oxley J, Liu S, Langford J, Bleechmore M, Guaglio A, Road safety for pedestrians who are blind or have low vision. Monash University Accident Research Centre, December 2012.
8. Maplesden C, A dim view of pedestrian safety – raising awareness of the needs of vision impaired pedestrians. Journal of the Australasian College of Road Safety, Volume 23 No 3, 2012.