

Public transport accessibility standards and public transport use

Adults with intellectual impairment and adults with physical impairment: A decade of Australian national data

Public transport and intellectual disability

Introduction

The importance of accessibility

The ability to access and move around a community is a necessary prerequisite for inclusion, both economic (FaHCSIA, 2009; VEOHRC, 2013) and social (Stancliffe, 2014).

People with disability can experience barriers to access

Types of barriers can vary with different types of impairment

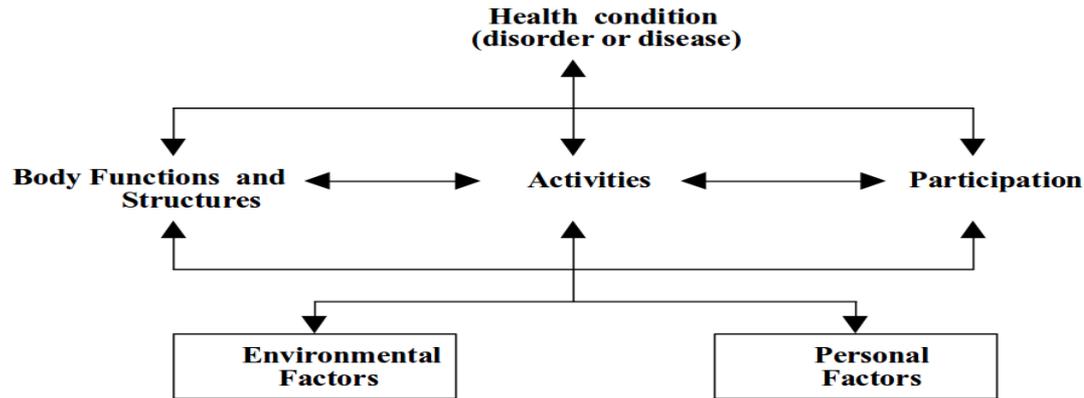
This research looked at whether people with different types of disability have experienced changes in using public transport over the ten years since public transport accessibility standards were introduced in Australia.

Public transport and intellectual disability

Definitions

Disability

A multidimensional concept that emerges through relationships between:



(WHO, 2001)

Impairment

Specific activity limitation or participation restriction

Public transport and intellectual disability

Introduction

Disability Standards for Accessible Public Transport ('the Standards')

The Standards are minimum performance requirements made under the *Disability Discrimination Act 1992 (Cwlth)* ('the Act')

These performance requirements mostly relate to physical accessibility of public transport infrastructure

2004 Productivity Commission review of the effectiveness of the Act

- Some positive impacts for people with physical impairment using public transport
- Less evidence of benefits for people with cognitive impairment

Public transport and intellectual disability

Introduction

Barriers to using public transport for people with intellectual impairment

The complexity of Victoria's electronic ticketing system (VCOSS, 2008; VEOHRC, 2013)

Crowding on trains (Falkmer et al., 2015)

Announcements can be difficult to understand (Corr McEvoy & Keenan, 2014)

Information may be provided in inaccessible formats (Wasfi & Levinson, 2007).

Public transport and intellectual disability

Introduction

The problem

Research into the effects of public transport disability policy for people with intellectual impairment is not prominent in academic literature (Currie & Allen, 2007; Lucas & Currie, 2012)

There are no nationally consistent policy outcome monitoring frameworks (Department of Infrastructure and Regional Development, 2015).

So...

Is there data that can indicate whether the DSAPT have been effective, and who it has been effective for?

Public transport and intellectual disability

Method

Secondary analysis of ABS Survey of Disability, Aging and Carers (SDAC) from 2003, 2009 and 2012

SDAC are nationally representative surveys of people with disability, people over 65, and carers

They include extensive information about:

- Specific conditions
- Limitations
- Restrictions
- Activities, including transport activities
- Participation

Public transport and intellectual disability

Method

Rates of use were analysed using two overlapping groups:

- People with intellectual impairment
- People with physical impairment

Types of barrier were analysed comparing two mutually exclusive groups:

- People with intellectual impairment whose primary disability was Intellectual or Developmental Disability or Autism Spectrum Disorder
- People with disability who experienced physical impairment but who did not have any intellectual impairment.

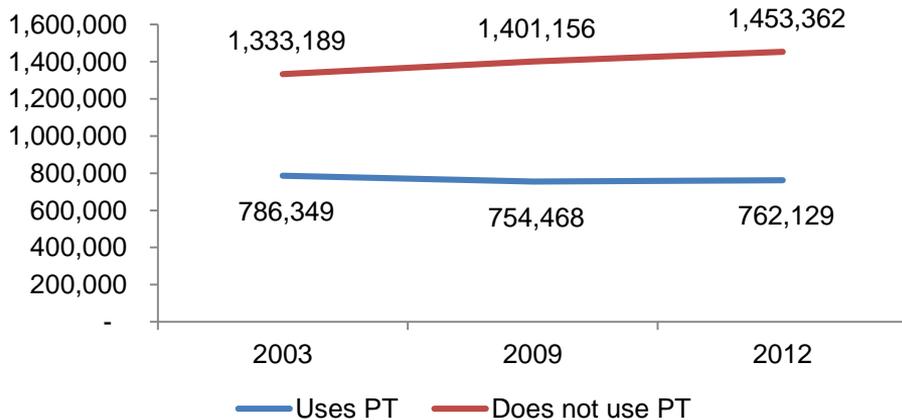
Public transport and intellectual disability

Results

For both intellectual and physical impairment:

There was an increase in numbers of people with disability using public transport.

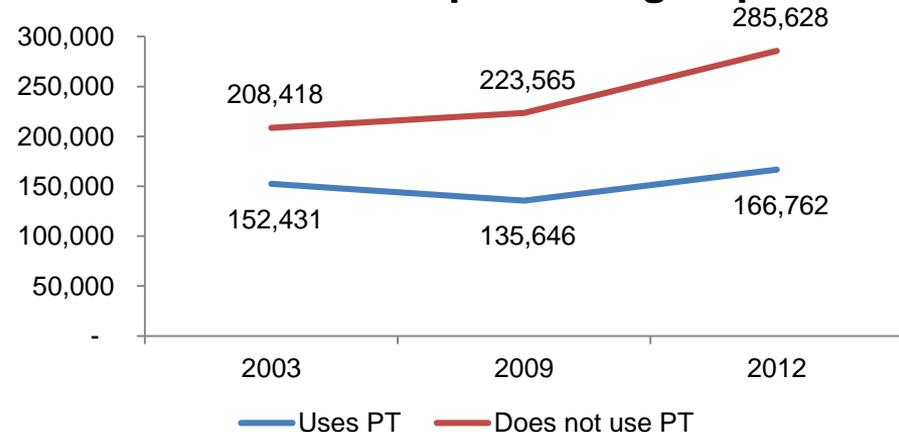
**Public transport use:
Physical impairment group**



BUT

The proportions of people using public transport did not change significantly from 2003 to 2012

**Public transport use:
Intellectual impairment group**



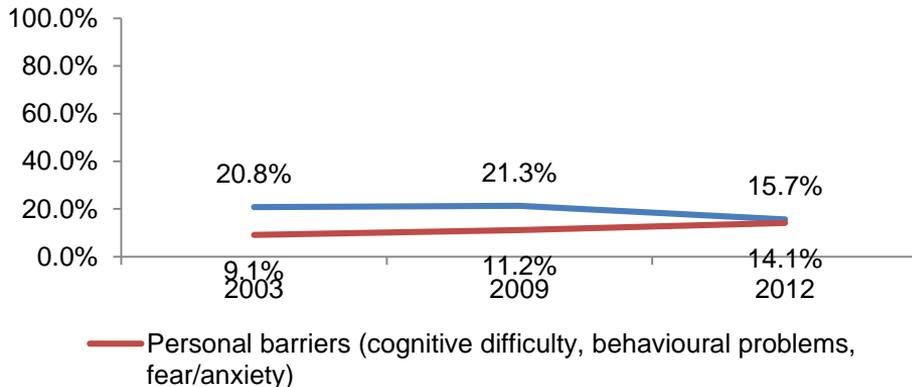
Public transport and intellectual disability

Results – all years

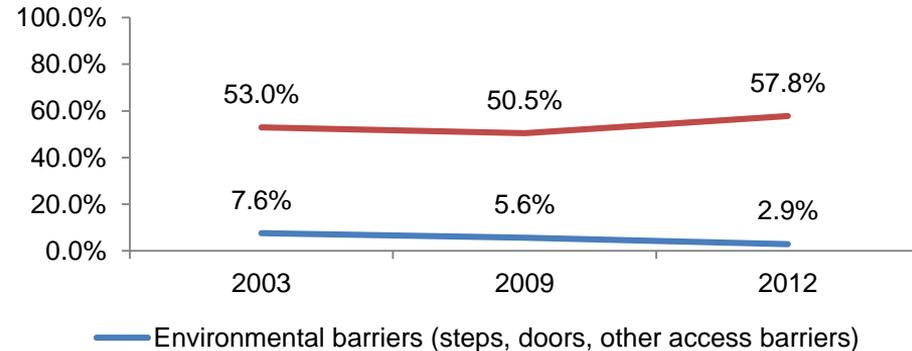
People with physical impairment only were five times more likely than people with intellectual impairment to report a higher number of environmental barriers to public transport use (OR = 4.78 [95% CI 2.88, 7.94], $\chi^2(1) = 36.938$, $p < .001$)

People with intellectual impairment only were ten times more likely than people with physical impairment to report a higher number of personal barriers to public transport use (OR = 10.37 [95% CI 8.29, 12.97], $\chi^2(1) = 10.369$, $p < .001$)

**Barriers to public transport use:
Physical impairment group**



**Barriers to public transport use:
Intellectual impairment group**



Public transport and intellectual disability

Results – changes over time

For people with physical impairment only, the effect of survey year on number of environmental barriers reported was significant.

In 2012 people reported fewer environmental barriers than in 2003 (OR = 1.38 [95% CI 1.14, 1.67], $\chi^2(1) = 10.72$, $p = .001$).

There was also a significant effect of survey year on number of personal barriers reported in this group ($\chi^2(2) = 17.09$, $p < .001$).

In 2012 people reported a *greater* number of personal barriers than in 2003 (OR = 1.64 [95% CI 1.28, 2.09], $\chi^2(1) = 15.57$, $p < .001$). The differences from 2003 to 2009 were not significant for either barrier type.

For people with intellectual impairment only, the effect of survey year on the number of environmental barriers reported was not significant ($\chi^2(2) = 2.641$, $p = .267$). The effect of survey year on number of personal barriers reported was also not significant ($\chi^2(2) = 0.35$, $p = .840$).

Public transport and intellectual disability

Discussion

Across all survey years:

- People with physical impairment only reported a higher number of more environmental barriers
- People with intellectual impairment reported a higher number of personal barriers

These findings are consistent with literature indicating that barriers to public transport use differ substantially for people with intellectual impairment, relative to people with physical or sensory impairment (e.g., Lubin & Feeley, 2016; Tillmann et al., 2013; VCOSS, 2008; VEOHRC, 2013).

Public transport and intellectual disability

Discussion

Suggestions for future research

- Examine the role of public transport in facilitating participation for people with intellectual impairment
- Investigate the relationship between personal factors and ability to use, or learn to use, public transport
- Analyse additional items in the most recent SDAC (ABS, 2016) which asked about experience of discrimination on public transport and associated participation restrictions
- Investigate the increase in reported personal barriers for people with physical impairment

Public transport and intellectual disability

Discussion

Conclusion

There have been some improvements to physical accessibility for people with physical impairment following the introduction of DSAPT.

Accessibility for people with intellectual impairment does not appear to have changed significantly.

The purpose of DSAPT is to give effect to the stated object of *DDA* “to eliminate, *as far as possible* [emphasis added], discrimination against persons on the ground of disability...” (1992, sec. 3).

As compliance with DSAPT improves, so might the limits of possibility be extended regarding removal of barriers ‘as far as possible’.

References

- Australian Bureau of Statistics 2003, *Survey of Disability, Ageing and Carers (2003)*, Confidentialised Unit Record File (CURF). Findings based on use of ABS Microdata.
- Australian Bureau of Statistics 2009, *Survey of Disability, Ageing and Carers (2009)*, Confidentialised Unit Record File (CURF). Findings based on use of ABS Microdata.
- Australian Bureau of Statistics 2012, *Survey of Disability, Ageing and Carers (2012)*, Confidentialised Unit Record File (CURF). Findings based on use of ABS Microdata.
- Corr McEvoy, S., & Keenan, E. (2014). Attitudes towards People with Disabilities – what do people with intellectual disabilities have to say? *British Journal of Learning Disabilities*, 42(3), 221–227. <http://doi.org/10.1111/bld.12032>
- Currie, G., & Allen, J. (2007). Australians with disabilities: Transport disadvantage and disability. In G. Currie, J. Stanley, & J. Stanley (Eds.), *No way to go: Transport and social disadvantage in Australian communities*. Clayton, Vic: Monash University ePress. Retrieved from <http://books.publishing.monash.edu/apps/bookworm/download/epub/133/>
- Department of Infrastructure and Regional Development. (2015). *Review of the Disability Standards for Accessible Public Transport*. Australian Government Department of Infrastructure and Regional Development. Retrieved from <https://infrastructure.gov.au/transport/disabilities/review/2012.aspx>
- Department of Families, Housing, Community Services and Indigenous Affairs. (2009). *Australian Government disability services census 2007*. Canberra: Australian Government Department of Families, Housing, Community Services and Indigenous Affairs. Retrieved from <http://apo.org.au/resource/australian-government-disability-services-census-2007>
- Falkmer, M., Barnett, T., Horlin, C., Falkmer, O., Siljehav, J., Fristedt, S., ... Falkmer, T. (2015). Viewpoints of adults with and without Autism Spectrum Disorders on public transport. *Transportation Research Part A: Policy and Practice*, 80, 163–183. <http://doi.org/10.1016/j.tra.2015.07.019>
- Kavanagh, A. M., Krnjacki, L., Beer, A., Lamontagne, A. D., & Bentley, R.: Time trends in socio-economic inequalities for women and men with disabilities in Australia: Evidence of persisting inequalities. *International Journal for Equity in Health*, 12(1), 73-82.
- Lucas, K., & Currie, G. (2012). Developing socially inclusive transportation policy: Transferring the United Kingdom policy approach to the State of Victoria? *Transportation*, 39(1), 151–173. <https://doi.org/10.1007/s11116-011-9324-2>
- Stancliffe, R. J. (2014). Inclusion of adults with disability in Australia: Outcomes, legislation and issues. *International Journal of Inclusive Education*, 18(10), 1053–1063.
- Victorian Council of Social Services (VCOSS). (2008). *Accessible public transport watch project*. Retrieved from <http://www.vcoss.org.au/documents/VCOSS%20docs/Transport/Access%20Watch%20-%20email.pdf>
- Victorian Equal Opportunity and Human Rights Commission. (2013). *Who's on board: Public transport for people with disabilities in Victoria*. Melbourne: Author. Retrieved from <http://www.humanrightscommission.vic.gov.au/index.php/our-resources-and-publications/reports/item/695-whos-on-board-public-transport-for-people-with-disabilities-in-victoria>
- World Health Organization (2001). *International classification of functioning, disability and health: ICF*. Geneva: World Health Organization.