

‘Holding up a mirror to public policy’

The role economic modelling and equity benchmarking can play in influencing systemic change in Australian assistive technology policy and implications for Canada

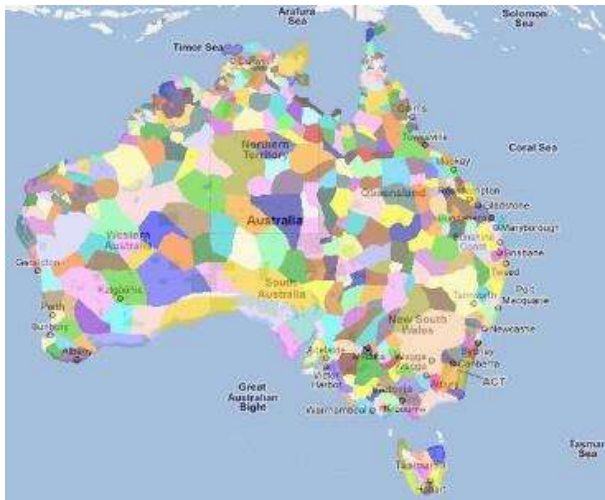
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Monash RAIL Research Centre, Peninsula campus Victoria, Australia
<https://www.monash.edu/medicine/spahc/rail/research>



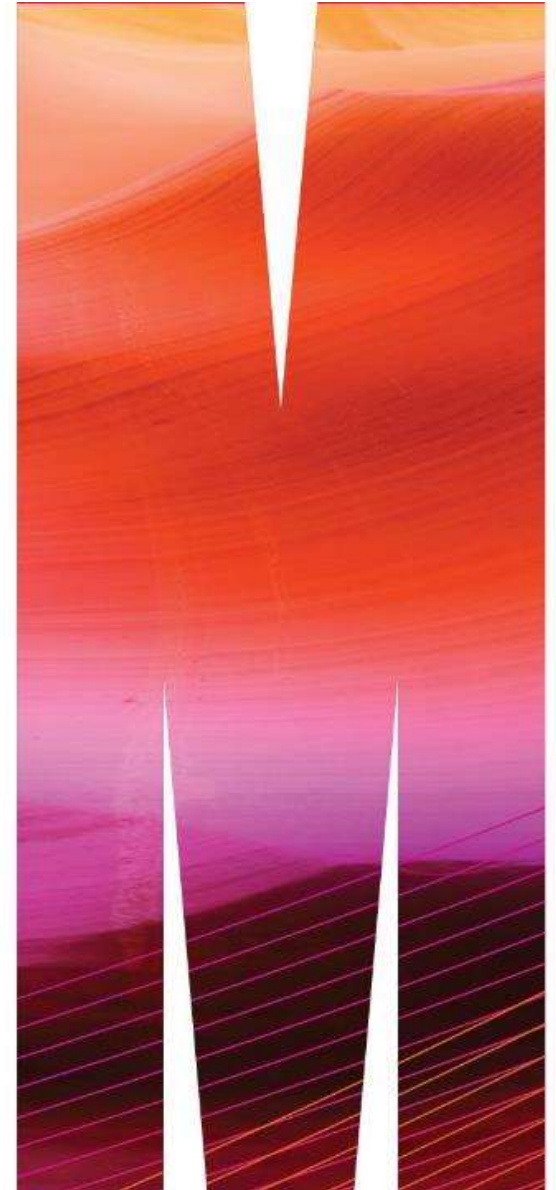


We acknowledge Aboriginal and Torres Strait Islander peoples as the First Peoples and Traditional Owners of Australia.

We work on the lands of the Bunurong people and the Ngunnawal people.

We pay respects to their Elders past and present. We extend that respect to all indigenous peoples joining us today from different lands.

Acknowledgement of Country



Why is an occupational therapist thinking about economic concepts?

- Senior Research Fellow @RAIL Research Centre Monash University in Victoria, Australia
- International Lead ARATA (Australian Rehabilitation & AT Association) www.arata.org
- Secretary to GAATO (Global Alliance of Assistive Technology Organisations) www.gaato.org
- Member ISO TC173 SC2 WG 12 Assistive Products
- Member WHO FIC Functioning and Disability Reference Group and Australian ICF Interest Group



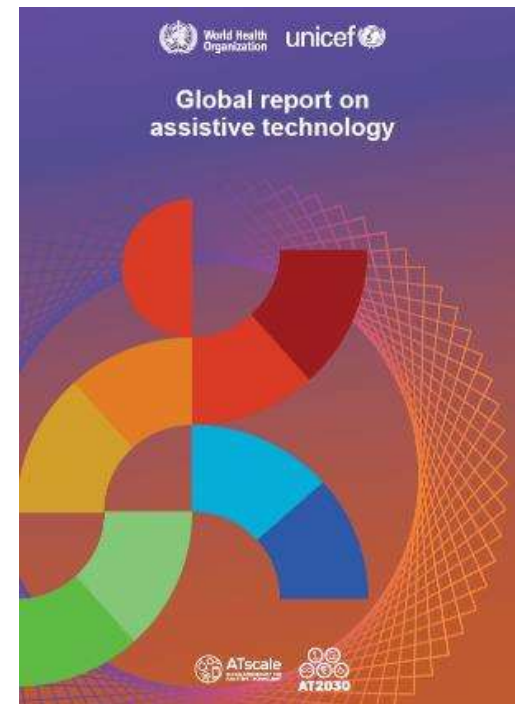
Global Unmet Need:

WHO/ UNICEF Global Report on Assistive Technology (2022)

<https://apps.who.int/iris/handle/10665/354357!>



1. Improve access to assistive technology within all key development sectors
2. Ensure that assistive products are safe, effective and affordable
3. Enlarge, diversify and improve workforce capacity
4. Actively involve users of assistive technology and their families
5. Increase public awareness and combat stigma
6. Invest in data and evidence-based policy
7. Invest in research, innovation and an enabling ecosystem
8. Develop and invest in enabling environments

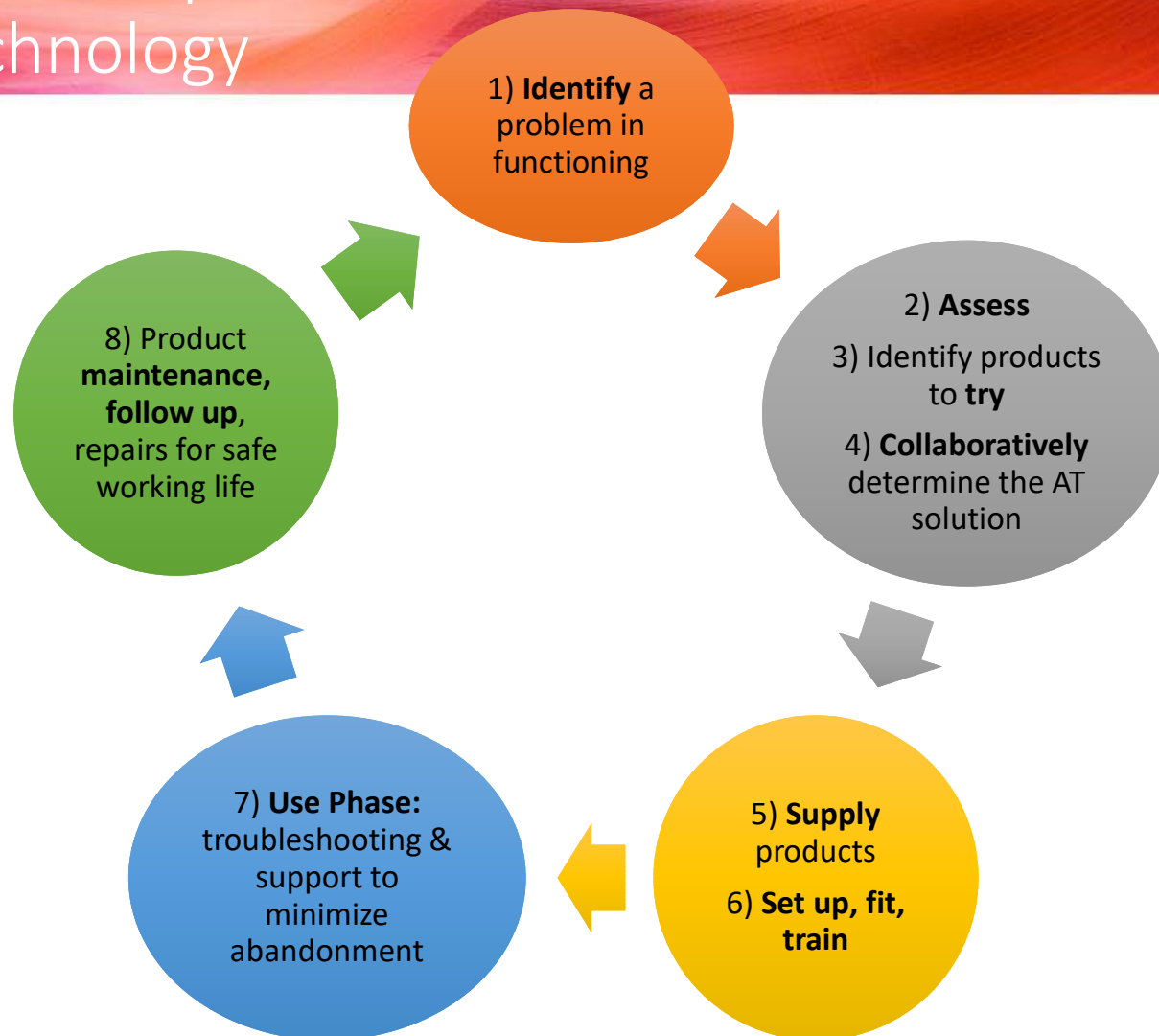


Assistive technology?

ISO 9999 **Assistive products** for persons with disability — Classification and terminology (2022)



Assistive products + assistive services = assistive technology



Layton, Spann, Khan, Contepomi, Hoogerwerf, Bell & de Witte. (2024)
Guidelines for assistive technology service provision – A scoping review
Disability and Rehabilitation: Assistive Technology
1-12, doi:10.1080/17483107.2024.2327515



Research in Canada:

- consumer led
- policy focused

Rosalie Wang &
Michael Wilson



Dialogue Summary

Implementing a Policy Vision for Enhancing
Equitable Access to Assistive Technologies
in Canada

26 February 2020



Disability and Rehabilitation: Assistive Technology

ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/ldt20>

**Policymaker and stakeholder perspectives on
access to assistive technologies in Canada:
challenges and proposed solutions for enhancing
equitable access**

Rosalie H. Wang, Natalia Zdaniuk, Evelyne Durocher & Michael G. Wilson

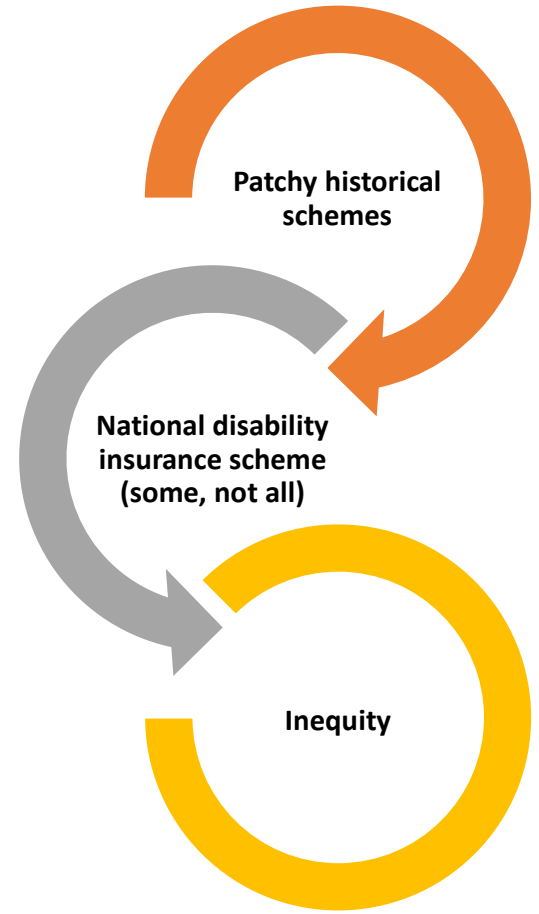
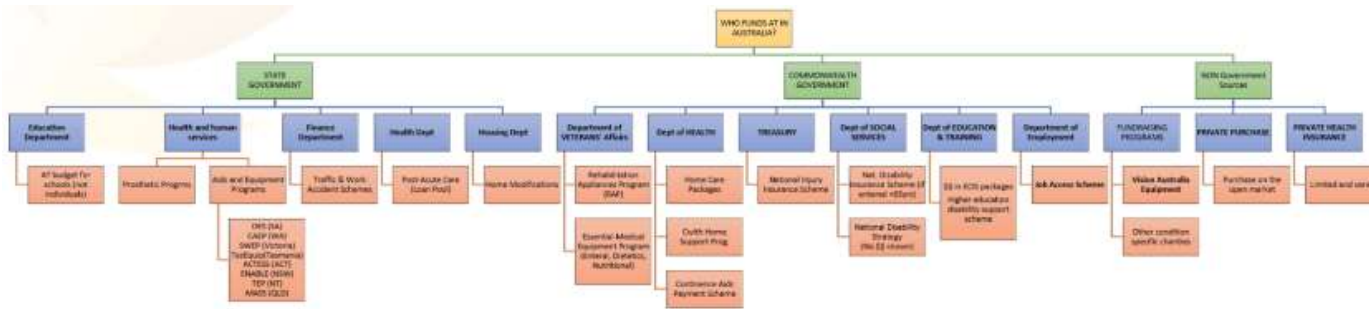
To cite this article: Rosalie H. Wang, Natalia Zdaniuk, Evelyne Durocher & Michael G. Wilson (2022) Policymaker and stakeholder perspectives on access to assistive technologies in Canada: challenges and proposed solutions for enhancing equitable access, *Disability and Rehabilitation: Assistive Technology*, 17:1, 61-73, DOI: [10.1080/17483107.2020.1765033](https://doi.org/10.1080/17483107.2020.1765033)

To link to this article: <https://doi.org/10.1080/17483107.2020.1765033>



EVIDENCE >> INSIGHT >> ACTION

Research in Australia...



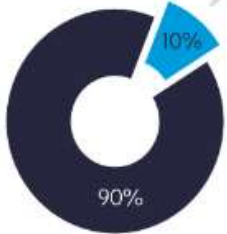


1 in 5 people

have a disability or long-term health condition

Almost **50%**
of people over
the age of 65

have a disability or
long-term health condition



Only **10%**
of people with disability
are eligible for the National
Disability Insurance
Scheme (NDIS)



PWD in Australia (all ages) = 4,370,300 ²⁴

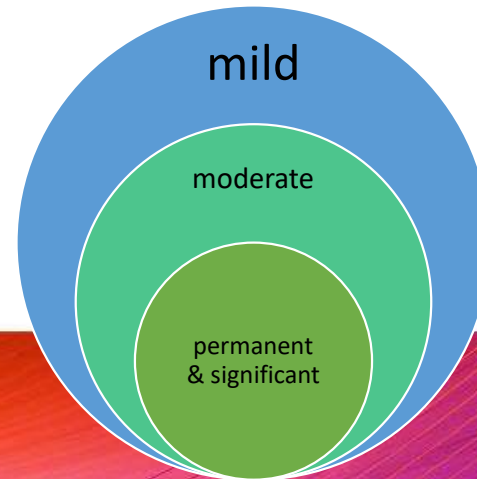
- PWD (all ages) with access to NDIS = 466,619 ²⁵
- PWD (all ages) with access to Aged Care (however services not fit for purpose for all of their AT/HM needs) = 1,300,627 ¹⁸
- PWD (all ages) currently not accessing Aged Care or NDIS = 2,603,054

PWD under 65 years in Australia = 2,427,600 ²⁴

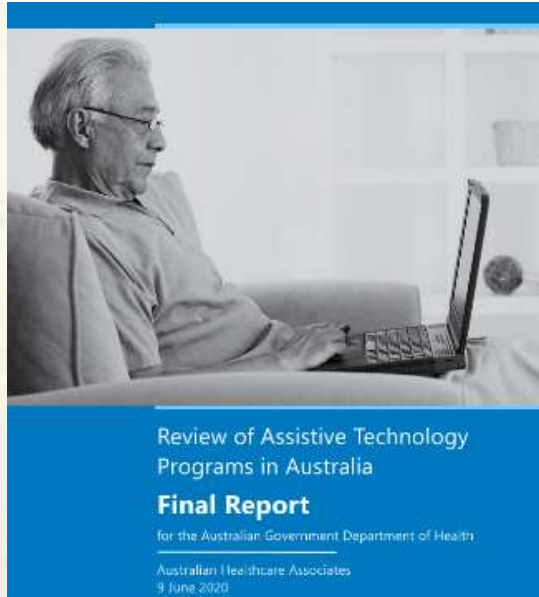
- PWD under 65 years, with access to NDIS = 450,038 ²⁵
- PWD under 65 years, currently not accessing NDIS = 1,977,562

PWD 65 years plus in Australia = 1,942,700 ²⁴

- PWD 65 years plus, ageing within the NDIS = 16,581 ²⁵
- PWD 65 years plus, with access to Aged Care (however services not fit for purpose for all of their AT/HM needs) = 1,300,627
- PWD 65 years plus, currently not accessing Aged Care or NDIS = 625,492 ¹⁸



Australia's population: 25 million



Contract research which framed the problem space...

Australian Healthcare Associates.
Review of Assistive Technology Programs in Australia: Final Report and Supplementary Technical Report for the Australian Government Department of Health; Department of Health: Canberra, June, 2020.

<https://www.health.gov.au/resources/publications/review-of-assistive-technology-programs-in-australia-supplementary-technical-report>

Informing the new national aged care 'Support at Home' scheme



Partnerships with civil society



ATFA 
Assistive Technology for All





ATFA 
Assistive Technology for All

The Australian Assistive Technology Equity Studies:
Improving access to assistive technology for people with disability who are not eligible for the NDIS




2022

Seed Grant The Australian Assistive Technology Equity Studies: Improving access to assistive technology for people with disability who are not eligible for the NDIS.



MONASH
University

Improving AT and HM provision
within the Australian Government
Support At Home reforms



If you would like to hear more about this project, please contact
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nilusha.layton@monash.edu

Research undertaken 2023/2024
The Support at Home Reform branch in the Australian Government Department of Health have contracted RAIL Research Centre, Monash University to develop the following assistive technology (AT) and home modifications (HM) deliverables for Government consideration:

- 1** Inclusion List of Assistive Technology and Home Modifications
- 2** Exclusion List of Assistive Technology and Home Modifications
- 3** List of Assistive Technology and Home Modifications for people with complex and progressive disability, with associated guidance

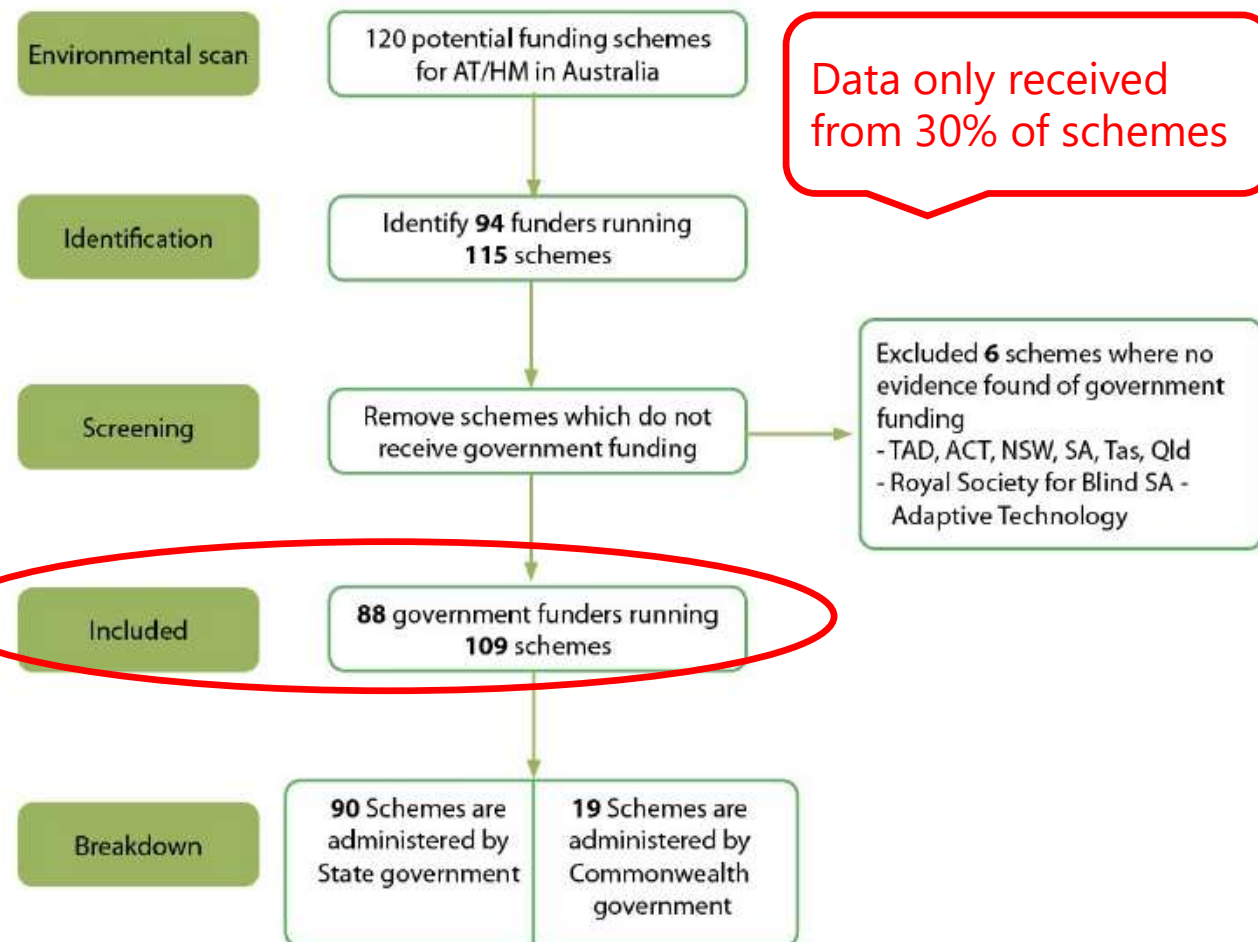
2024

Contract research for Government on policy redesign of assistive technology and home modifications for older Australians living at home

Layton & Brusco (2022) The Australian Assistive Technology Equity Studies: Improving access to assistive technology for people with disability who are not eligible for the NDIS. Monash University; COTA Victoria



- Part 1 What is the government spend on AT / HM and which Australians benefit?
- Part 2 The cost of a single national assistive technology program for non-NDIS participants



People who are **eligible** for the NDIS only need to enter one door to access funding



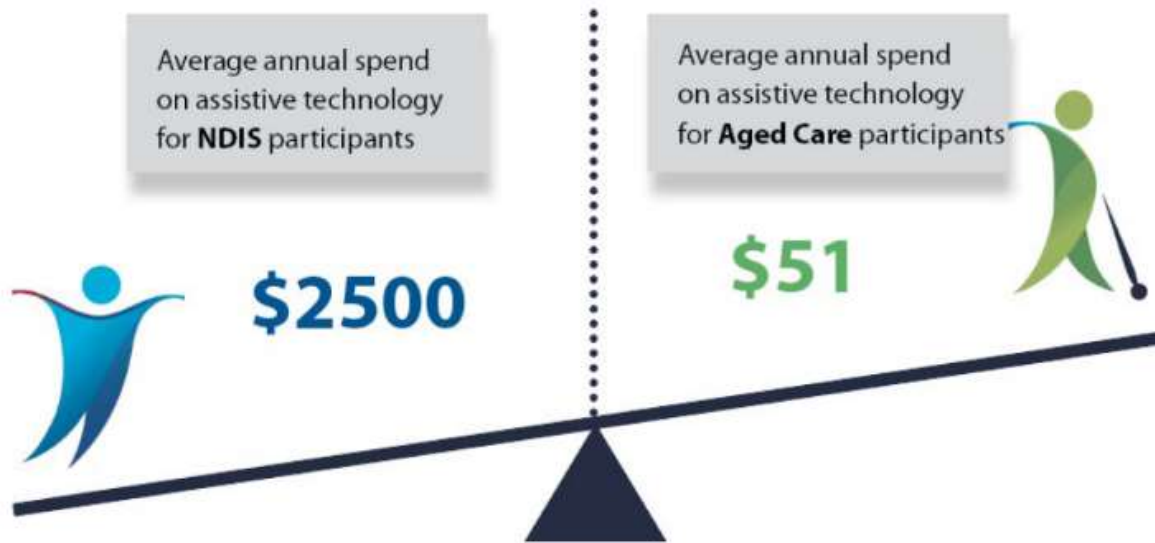
People who **aren't eligible** for NDIS have to navigate a labyrinth of 108 funding streams



Part 1: Historical array of funding schemes

- **Eligible by 'cause'** such as injury insurers; traffic accidents
- **Eligible by AT need** such as artificial limb schemes, stoma scheme
- **Eligible by identity** such as veterans, location
- **Eligible by impairment** such as sensory / neurological
- **Hybrid schemes** such as AT within education; housing

Part 2: Annual spend on AT or HM



Benchmark against NDIS
\$1.2 billion (total spend)
467,000 Australian people living with a disability participating in the NDIS

Of those with AT/HM in their NDIS plan:
141,000 (30% of total participants) access
\$4,000 of high level AT per year;
401,000 (86% of total participants) access
\$900 of low level AT per year; and
51,000 (11% of total participants) access
\$5,000 of HM per year

Whole population average **\$2,500**
AT/HM per person, per year

Aged Care Services
100,755 (8% of the 1.3 million participants) access AT/HM
\$66 million (total spend)
Whole population **\$51** per person, per year

DVA
65,409 (19% of the 338,463 participants) access AT/HM
\$153 million (total spend)
Whole population **\$453** per person, per year

Unknown how many Australian people living with a disability have access to AT/HM via the 106 additional Schemes funded by Government

Annual spend on assistive technology and home modifications

Inequitable AT/HM provision and spends

\$1.00

For every \$1.00 spent on assistive technology an additional \$0.33 to \$1.00 is spent on **wrap around**

+

**\$0.33 -
\$1.00**

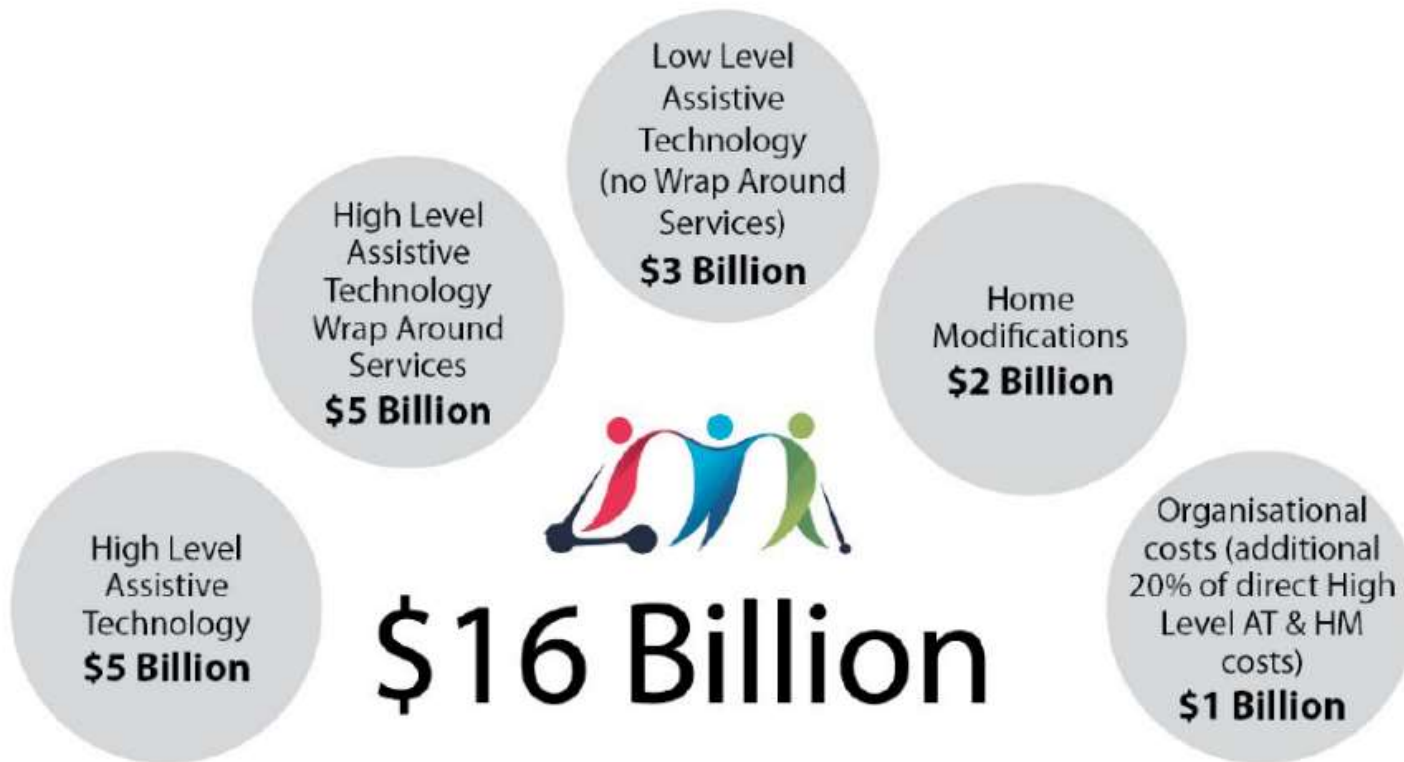
\$1.00

For every \$1.00 spent on assistive technology and/or home modifications an additional \$0.10 to \$1.98 is spent on **organisational costs**

+

**\$0.10 -
\$1.98**

Forecasting the cost of equitable AT/HM funding for all Australians



An annual spend of \$16 billion dollars can save \$32 billion dollars. For every dollar spent on assistive technology and home modifications, there is a conservative two-fold return on investment relating to savings on the cost of paid carers, support services and medical services. (page 35)

Knowledge translation:

With co-design from AT user groups, provide evidence into policy-relevant language and multiple formats

- <https://assistivetechforall.org.au/>
- <https://www.youtube.com/watch?v=o92pzCPavZ0>

Briefing paper:

Improving access to assistive technology for people with disability who are excluded from the NDIS

What is assistive technology?

- The term 'assistive technology' (AT) refers to any aid, piece of equipment or home modification that helps someone overcome the impact of disability.
- Wheelchairs, ramps, electronic communication devices, prosthetic limbs and screen reading software are all examples of assistive technology.
- These solutions play a critical role in the lives of many people with disability, their family and Carers by:
 - ▶ Increasing independence and participation in everyday activities;
 - ▶ Reducing reliance on families and Carers, thereby improving personal relationships and minimising carer stress;
 - ▶ Minimising the onset of secondary health conditions;
 - ▶ Reducing the risk of accidents and falls;
 - ▶ Helping people to remain living in their own homes for as long as possible.

What is the problem?

- While the NDIS has the ability to fully fund the assistive technology that is needed by participants, this scheme was only ever intended to provide support to around 10% of people with disability across Australia.
- People with disability who are excluded from the NDIS still do not have equitable access to the assistive technology they need. They are commonly required to wait more than 12 months to access funding, self-fund some or all of the assistive technology they need or simply go without.

Knowledge translation: internal and external communication strategies strategies



From glasses to mobility scooters, 'assistive technology' isn't always high-tech. A WHO roadmap could help 2 million Australians get theirs

This month, the first ever World Health Organization (WHO) and UNICEF Global Report on Assistive Technology was released.

The WHO estimates one in three of us will need assistive technology, ranging from glasses to mobility scooters, in our lifetimes. This number is set to grow with an ageing population and the rising prevalence of non-communicable diseases such as heart disease and diabetes, which are major causes of disability.

THE CONVERSATION

Academic rigour, journalistic flair May 26, 2022

2020/21		NDIS participants with a disability	Non-NDIS participants with a disability	Total population with a disability
Number of people with a disability				
Aged 0-64	Number	450,038	1,977,562	2,427,600
Aged 65+	Number	16,581	1,926,119	1,942,700
All ages	Number	466,619	3,903,681	4,370,300
HIGH LEVEL assistive technology: Number of people who need access to HIGH LEVEL assistive technology (based on 30.17% of population for NDIS and non-NDIS participants)				
Aged 0-64	Number	135,784	596,662	732,446
Aged 65+	Number	5,003	581,141	586,144
All ages	Number	140,786	1,177,803	1,318,589
HIGH LEVEL assistive technology: Annual cost of HIGH LEVEL assistive technology (based on 30.17% of population for NDIS and non-NDIS participants @ \$4,000)				
Aged 0-64	Cost	\$543,134,515	\$2,386,647,745	\$2,929,782,260
Aged 65+	Cost	\$20,011,007	\$2,324,563,057	\$2,344,574,063
All ages	Cost	\$563,145,522	\$4,711,210,801	\$5,274,356,323
LOW LEVEL assistive technology: Number of people who need access to LOW LEVEL assistive technology (based on 85.91% of population for NDIS and non-NDIS participants)				
Aged 0-64	Number	386,640	1,698,979	2,085,619
Aged 65+	Number	14,245	1,654,782	1,669,028
All ages	Number	400,885	3,353,761	3,754,646
LOW LEVEL assistive technology: Annual cost of LOW LEVEL assistive technology (based on 85.91% of population for NDIS and non-NDIS participants @ \$900)				
Aged 0-64	Cost	\$347,976,161	\$1,529,080,729	\$1,877,056,890
Aged 65+	Cost			905
All ages	Cost			795
Home modifications: Annual cost of home modifications (based on 10.92% of population for NDIS and non-NDIS participants @ \$5,000, excluding people in residential care)				
Aged 0-64	Cost	\$245,763,298	\$1,079,935,826	\$1,325,699,124
Aged 65+	Cost	\$9,054,794	\$1,051,843,084	\$1,060,897,878
All ages	Cost	\$254,818,092	\$2,131,778,910	\$2,386,597,002




2024


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Monash RAIL team

MONASH University







Informing AT and HM provision within the Australian Government Support At Home reforms

 If you would like to hear more about this project, please contact
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Product Complexity Index (PCI) to balance risk, qualifications, and product complexity

Product Risk \ Qualification for assessment and safe recommendation	Low-risk	Under-advice	Prescribed
Available for all Support at Home Program participants via IAT			
Basic skills / trained Scheme Assessors			
Professional: multiple professions			
Professional: specific qualification required			


The level of risk factor is multiplied by the complexity factor to determine the Product Complexity Index ie calculate the number of hours and type of wrap-around supports required




LOW RISK




Green




UNDER ADVICE AT



Amber



PREScribed AT



Red

Wraparound support costing model



Wraparound service	Amount (\$AUD 2023/24)
Professional workforce	per hour base rate
Basic skill workforce	per hour base rate

	Please select response:		Multiplication factor
Indigenous Peoples	Yes	Remote location	
		Very remote location	
		Indigenous Peoples	

Select which item you want costing data for:	Item level: "level of risk" and "complexity" classifications		
	Level of risk	Level of complexity (the workforce 'role')	Product Complexity Index

Item level: "Workforce" support		
Cost allocation for wrap-around services in <u>Year 1</u>	Cost allocation for wrap-around services in subsequent years (presented as a % and re-assessed every 2 years)	Cost allocation for wrap-around services in <u>subsequent years</u>

Individual level: Equity Weights (Indigenous Status)	
Year 1: Wraparound service cost	Subsequent years: Wraparound service cost

Conclusion

- ✓ Economic modelling and equity benchmarking have a role to play in influencing systemic change
- ✓ This has been demonstrated Australian assistive technology policy
- ✓ Colleagues in Canada are also leading the way (Professor Rosalie Wang & Professor Michael Wilson)

The image displays two journal article covers. The top cover is from the journal 'Healthcare Policy' (Volume 2021, Issue 1, 2022) and features the title 'It is time for a national strategy on equitable access to assistive technology in Canada' by Rosalie H. Wang, PhD, OT Reg.(Ont.)¹ and Michael G. Wilson, PhD². The bottom cover is from the 'Australian Journal of Social Issues' (Wiley) and features the title 'It is time for nationally equitable access to assistive technology and home modifications in Australia: An equity benchmarking study' by Natasha Layton^{1,2}, Natasha Brusco¹, Libby Callaway¹, Lauren Henley², and Rosalie H. Wang⁴. Both covers include QR codes and logos for their respective publishers, SAGE and Wiley.

Thank you

Authors Dr Natasha Layton & A/Prof Natasha Brusco

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