



**PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY
FOR HACC CLIENTS IN WA
FULL REPORT**

Authors: Natasha Layton, Dr Erin Wilson and Alex Andrews



PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

PUBLICATION DETAILS

PUBLICATION DETAILS: Layton, N., Wilson, E. Andrews, A. (2014). *Pathways to non-complex assistive technology for HACC clients in WA*. Perth:

PUBLISHER: Independent Living Centre of WA Inc.

ISBN: 978-0-9587958-8-3

PUBLICATION LOCATION Publications can be obtained by contacting Independent Living Centre of WA 93810663 or www.ILC.com.au

Contents

Contents	3
Table of Abbreviations	4
List of Figures.....	5
List of Tables	6
Section 1: Background and literature review.....	7
Purpose.....	7
Background.....	8
Literature review	9
Targeting AT and related strategies for the HACC population.....	25
Conclusion	27
Section 2: Research design	28
Project Description	28
Research oversight	28
Research Methods.....	30
Section 3: Findings of empirical study	34
What is meant by non-complex AT?	34
What pathways are RAS assessors currently using to refer HACC clients to non-complex AT?	38
Individual HACC client pathways.....	51
Roles of pathway providers.....	59
What barriers exist in obtaining non-complex AT?.....	77
Ingredients of effective pathways.....	93
Section 4: Implications and recommendations	100
1. What items are, or should be, included in an understanding of 'non-complex AT' that is commonly identified for, or useful to, HACC clients in WA?.....	100
2. What pathways are RAS assessors in WA currently using to refer HACC clients to non- complex AT?	102
3. What is the effectiveness of current pathways of access and funding to non-complex equipment for HACC clients in WA?.....	103
4. How could the access to and funding of non-complex assistive technology for WA HACC clients be improved?	107
Conclusion	108
Appendix 1 Table 1 Annotated bibliography: non-complex AT	111
Appendix 2 Competency standards related to HACC and AT.....	114
Appendix 3 Capturing outcomes	117
Appendix 3 Stakeholder focus group schedule	120
Appendix 4 HACC clients interview schedule.....	121
Appendix 5 RAS assessor interview schedule.....	122
Appendix 6 Prompt sheets for non-complex AT and strategies.....	124
Appendix 7 Full list of RAS identified pathways to AT.....	129
Appendix 8 Project Limitations	132

Table of Abbreviations

'Assistive technology' (AT) and 'equipment' are used synonymously through this report.

AD or AT	Assistive Device or Assistive Technology
A&E	Aids and Equipment
ACAT	Aged Care Assessment Team
ASM	Active Service Model
AIPC	The Australian Institute of Primary Care
AT-EI	Assistive Technology and Environmental Interventions
AT practitioner	Assistive Technology practitioner (may include occupational therapists, physiotherapist, nurse, rehabilitation engineer, orthotist etc.)
BAOT	British Association of Occupational Therapy
CSED	Care Services Efficiency Delivery
CDC	Consumer Directed Care
CAAS	Continence Aids Assistance Scheme
CMAS	Continence Management and Advice Service
CAEP	Community Aids and Equipment Program
CPD	continuing professional development
CRCC	Commonwealth Respite and Carelink Centre
DHS	Department of Human Services (Victoria)
DSC	Disability Services Commission
DOH	Department of Housing (WA)
DVA	Department of Veterans Affairs
EACH	Extended Aged Care at Home
EI	environmental intervention
ET	everyday technologies
HACC	Home and Community Care
HIP	Home Independence Program
ICT	information and communications technology
ILCWA	Independent Living Centre of Western Australia Inc.
LGA	Local Government Area
NDIS	National Disability Insurance Scheme
OT	Occupational Therapist / Therapy
PEP	Personal Enablement Program
RAS	Regional Assessment Service
RAS assessor	Assessor for HACC services via the Regional Assessment Service
SWEP	Statewide Equipment Program (Victoria)
TADWA	Technology Assisting Disability WA
TCES	Transforming Community Equipment Services program (UK government)
WAAF	Western Australian Assessment Framework

List of Figures

Figure 1 Winchcombe and Ballinger Competence Framework	23
Figure 2 Stakeholder sample (combined focus group and interview)	31
Figure 3 Pathways to non-complex AT suggested by RAS assessors.....	39
Figure 4 Total pathways to non-complex AT identified by RAS assessors	39
Figure 5 Pathways for Personal Care devices.....	41
Figure 6 Pathways for eating, drinking and meal preparation devices.....	42
Figure 7 Pathways to communication and visual aids	43
Figure 8 Pathways to household AT	44
Figure 9 Pathways to gardening AT	45
Figure 10 Pathways to shopping and vehicle mobility.....	46
Figure 11 Pathways to recreation and leisure AT.....	47
Figure 12 Pathways to medication management.....	48
Figure 13 Pathways to continence AT	49
Figure 14 Pathways to mobility AT.....	50
Figure 15 AT pathways for Haresh (C1).....	51
Figure 16 AT pathways for Betty (C2).....	52
Figure 17 AT pathways for Rowena (C3)	53
Figure 18 AT pathways for Mary (C4).....	54
Figure 19 AT pathways for Don (C5).....	55
Figure 20 AT pathways for Hannah (C6).....	56
Figure 21: AT pathways for Benetta (C7)	58
Figure 22 RAS AT skill trajectories	71
Figure 23 Years of experience of RAS assessors (n-19)	72
Figure 24 AT knowledge levels of RAS assessors (n-19).....	73
Figure 25 Range of attitude in RAS assessors (n-19)	74
Figure 26 Interviewer-rated skill levels (attitude, knowledge and experience).....	76

List of Tables

Table 1 Characteristics of ‘straightforward cases’ (Guay et al. 2012).....	15
Table 2 Commonwealth home care levels and services	18
Table 3 Daily living areas in scope for HACC: of non-complex AT and related strategies.....	25
Table 4 Work simplification and energy conservation principles for HACC population	26
Table 5 Categories of AT, modification and supports to life areas	34
Table 6 Non-complex AT used and required by HACC clients in study	36
Table 7 Most frequently mentioned pathways to AT, by RAS assessors	40
Table 8 Non-complex AT and related strategies for HACC population	101

Section 1: Background and literature review

Purpose

The project aims to identify, evaluate and make recommendations to improve the pathways by which West Australian (WA) Home and Community Care (HACC) clients access daily living equipment. Otherwise known as assistive technology (AT), these devices are largely non-complex and often low cost. Funded by HACC and conducted within the context of the WA Assessment Framework (WAAF), the project seeks to answer the following question:

How can aids and equipment be most effectively assessed, accessed, funded and used?

The research is designed to inform WA state government policy and Commonwealth HACC government policy in relation to the funding of HACC client access to assistive technology. Whilst set in WA, the topic and findings have relevance to HACC in other Australian states and territories, as well as other aspects of aged care policy, other sectors such as disability, and other areas of inquiry such as competency standards and consumer self-direction.

Research questions

- What items are, or should be, included in an understanding of 'non-complex assistive technology' that is commonly identified for, or useful to, HACC clients in WA?
- What pathways are Regional Assessment Service (RAS) assessors¹ in WA currently using to refer HACC clients to non-complex assistive technology?
- What is the effectiveness of current pathways of access and funding to non-complex equipment for HACC clients in WA?
- How could the access to and funding of non-complex assistive technology for WA HACC clients be improved?

¹ NB RAS assessors determine eligibility for HACC support in the WAAF. Initial RAS assessment in the home is followed by annual reviews.

Background

Assistive technology and older consumers in WA

This study examines pathways to access non-complex AT for consumers of HACC services. The WA HACC Program is funded jointly by the Australian Government and the WA State Government under the *Home and Community Care Act 1985* (Cth), with several subsequent amending agreements. In line with WA Health Strategic Intent, the HACC Program aims to:

provide a comprehensive, coordinated and integrated range of basic maintenance and support services for frail aged people, younger people with a disability, and their carers; support these people to be more independent at home and in the community, thereby enhancing their quality of life and/or preventing their inappropriate admission to long term residential care; and provide flexible, timely services that respond to the needs of consumers.²

The introduction of WAAF in January 2011 represents a major redesign of community care that addresses population changes, and delivers increased choice and control to consumers:

Regional Assessment Services and HACC service providers are working collaboratively to ensure support is delivered in a way that assists people to develop, retain and/or regain their skills and continue to live independently in the community.³

This has led to an increased emphasis within the assessment process on the role of aids and equipment (A&E) and home modifications in enabling HACC clients to remain independent within their home environment. A focus on wellness and enablement, and a greater awareness of the benefits of assistive technology have highlighted the barriers to accessing equipment within the current system. The state-based and state-funded Community Aids and Equipment Program (CAEP) does not support the purchase of the majority of equipment considered 'low cost' for HACC-eligible clients. There are a small number of specific HACC-funded programs that provide equipment to the client; though distribution is not equitable, nor integrated across HACC-funded services. Assessors working within the HACC framework are not expected to prescribe complex equipment but their work roles do encompass suggesting low cost solutions available to the general public.

The Independent Living Centre (ILCWA) has been the main independent provider of information and advice about AT in Western Australia since 1978. Over the past 10 years the volume of HACC clients accessing the ILCWA services has steadily grown and this target audience now comprises over half the ILCWA clientele and is continuing to expand, consistent with the ageing demographic trend.

² WA HACC manual. Perth: Department of Health; 2013. p. 6.

³ *ibid.* p. 18.

Concurrent and related initiatives

This research project was completed against a broader backdrop of major disability, health and aged care reforms such as the National Disability Insurance Scheme and WA's MyWAY initiative; the National Health Reform package; and the Caring for Older Australians Review and subsequent Living Longer Living Better reforms. Related local initiatives include 'An Evaluation of Assistive Technology Outcomes for HACC Consumers of the Independent Living Centre',⁴ and the recently commenced HACC Home Modifications Pathways project managed by the Independent Living Centre of WA.

The Productivity Commission Report 2011, *Productivity Commission (2011) Caring for Older Australians Final Inquiry Report Canberra*, has made recommendations for a new service model to guide the general public in accessing information and support for entry into aged care services. The new service model identifies a 'senior's gateway' as the front end to aged care services. The report also emphasises the importance of early stage provision of and access to equipment.

The importance of early stage provision of and access to equipment is also emphasised in the report. The *Disability Care and Support Report*⁵ also enshrines consumer choice and control, and individualised funding models as the preferred service approach. This current research is mindful of these overarching paradigm shifts in policy as well as local initiatives and contexts.

This research also builds upon previous work with HACC clients, specifically using the established *Wellness Approach to Community Home Care – Equipment and Resource Guide*⁶ in constructing the study method and informing its parameters.

Literature review

In order to inform both the research design and the findings, a literature review related to the research questions was conducted. Primary attention was paid to the analysis of the definition and nature of low cost or readily accessed AT compatible with the parameters of HACC support. In addition, an exploration of relevant models of service delivery in this context was undertaken.

Search strategies

Database searches were conducted through Pub-Med, Ebscohost and Clinicians Health Channel. Excluded areas of low cost AT were those related to children, to developing contexts, or to specialty areas, for example lactation or hearing aids. Search terms included assistive technology; aids and equipment; provision; basic; low cost; supplies; access; aids to

⁴ An evaluation of assistive technology outcomes for HACC clients for HACC consumers of the Independent Living Centre. ILCWA Assistive Technology Service; 2013.

⁵ Disability care and support report. Productivity Commission; 2011.

⁶ CommunityWest. Wellness approach to community home care: equipment and resource guide. Perth: HACC and CommunityWest; 2007.

daily living; over-the-counter; non-prescription; and healthcare goods. Handsearches of AT journals and related policy journals were also conducted. Targeted searches were conducted of the grey literature, for example government reports and policy documents. Specific communication with key stakeholders was undertaken, in particular concerning the UK retail model; the Active Service Model (ASM) in Victoria; and national training and competency standards for community services and HACC related to scope of practice.

Defining terms: low cost or non-complex AT

It is difficult to think of any technology that is not 'assistive'. Technology is ubiquitous and many terms are used to delineate those technologies that mediate the effects of impairment, or minimise barriers within the environment. A range of terms used to refer to products used by people with disability include: rehabilitation technology; everyday technologies; adapted technologies; health care technologies; assistive technology; assistive products; and ergonomics.⁷ Some terms present a 'taxonomy' or range of AT; the following terms come from Cook and Hussey:⁸

- Low to high technology: inexpensive devices that are simple to make versus expensive, more difficult to make, and harder to obtain
- Hard technologies and soft technologies: readily available components that can be purchased and assembled versus the human areas of decision-making, strategies, training, concept formation, and service delivery
- Minimal to maximal technology: refers to whether technology augments or replaces function, for example a letter board to clarify speech is minimal technology, while a speech-generating device to replace speech is maximal technology
- General versus specific technologies: used across a wide range of applications or performance in one unique application area. For example, a hearing aid is used across all environments and participations the person may engage in, while a feeding device is intended to support the specific activity of eating. ^(pp. 5-7)

As technology develops, definitions blur around mainstream versus specialist devices, and also around cost, availability and level of technological complexity (for example, the increasingly common use of smartphone technology or home automation). In a recent report, Consumer Focus in Ireland described the less complex end of the AT spectrum as 'simple aids to daily living' (as opposed to complex aids to daily living).⁹ Extending the perspective still further is the notion of 'everyday technologies' (ETs), which may include such items as stoves,

⁷ Scherer M. Assistive technologies and other supports for people with brain impairment. New York: Springer; 2012. p. 141.

⁸ Cook A, Hussey S, eds. Assistive technologies: principles and practice. St. Louis: Mosby Elsevier; 2008. pp. 5–7. Summary of box 1.1.

⁹ Consumer Focus. Equipment for older and disabled people: an analysis of the market. Ireland: Consumer Focus; 2010. p. 27.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

electric kettle, TV, remote control, microwave, press button telephone, coffeemaker, washing machine, dishwasher, radio, stereo, computer, cell phone and DVD. Patomella et al.¹⁰ describe ETs as an important part of the environment in which we live and interact, but they identify that, 'ETs, more specifically information and communication technology, need to be designed to be more user-friendly and less complex'.^(p.243) Scherer¹¹ agrees, noting specific advantages for people living with disability using everyday technologies in that the user 'appears like everyone else', and that ETs are 'usually less expensive than specialised technologies.. She also notes several disadvantages, specifically that they 'most likely will not be paid for by health insurance; and they are made for the 'average user', not those with individual, particular needs'.

A specific area of development that spans everyday technologies and information and communications technology (ICT) is 'telemonitoring'. Building on the concept of substitution of supports,^{12,13} Miles and Doughty¹⁴ considered the impact of a range of supports, including home care, re-ablement, AT, meals and telecare services. They recommended that service development focus upon extending the 'scope of telemonitoring alongside the suite of other options to tailor responses to individuals'.^(p.141) Telemonitoring and telecare uptake is likely to influence the role of community service workers according to Doughty and Steele, who report that such hybrid systems will save costs and coordinate health and community outcomes.¹⁵

To conclude this discussion of definitions, there are a range of ways of classifying supports such as AT and environmental interventions (EI, or AT-EI) that make a difference to daily life. In articulating the type of AT of particular relevance to a HACC population, cost and complexity have both been used. In terms of what AT is 'in scope' among Australia's HACC clients, the most current contemporary 'low cost / easy provision' scheme we located was Southern Metropolitan Region's Equipment Project in Melbourne, Victoria.¹⁶ This Active Service Model (ASM) pilot scheme provided \$15,000 to a range of local government areas to purchase 'equipment (small aids and gadgets) [which is] relatively low cost, commercially

¹⁰ Patomella A H, Kottorp A, Malinowsky C, Lygard L. Factors that impact the level of difficulty of everyday technology in a sample of older adults with and without cognitive impairment. *J Assist Technologies* 2011;23:243–250

¹¹ Scherer M. *Assistive technologies and other supports for people with brain impairment*. New York: Springer; 2012. p.190.

¹² Agree E, Freedman V. Incorporating assistive devices into community-based long-term care. *J Aging Hlth* 2000;12:426–450.

¹³ Verbrugge L, Rennert C, Madans J. The great efficacy of personal and equipment assistance in reducing disability. *Am J Pub Hlth* 1997;87:384–392.

¹⁴ Miles D, Doughty K. The evolution of assisted living provider services (ALPS) to support twenty-first century health, social care and housing needs. *J Assist Technologies* 2011;5:140–145.

¹⁵ Doughty K, Steele C. The use of telecare and community equipment to improve joint working across health and social care. *J Assist Technologies* 2009;3:36–43.

¹⁶ Southern Metropolitan Region HACC. SMR ASM equipment project. Melbourne: HACC; November 2012.

available equipment that may be beneficial to clients in areas such as personal care, food preparation and household cleaning' (p.42). Training of HACC staff in the use and provision of the equipment explicitly excluded techniques or strategies; also excluded were shower chairs, over toilet frames, bath boards, rails, ramps, bed poles, wheelchairs, walking frames, built-up feeding utensils, chairs, and incontinence aids.

Based on the above data, a definition was proposed to describe the particular type of AT relevant to this project. The definition is as follows:

Proposed definition: Non-complex AT refers to products that augment daily living activities, usually in the home. Non-complex AT may be low technology, low cost and include everyday technologies. The common feature of non-complex AT is that AT users can readily identify and trial devices, and ascertain their likely value based on their daily experience.¹⁷

How effective is non-complex AT?

Assistive technology is an effective intervention linked to independence, mobility and physical function; improved safety and reduced falls; reduced hospitalisation; improved wellbeing and quality of life; and increased opportunities to continue living at home.¹⁸ Given the context of individuals with disability living into old age, and increasing numbers of older people likely to remain as community dwellers despite the onset of age-related illnesses,^{19,20} AT mediates the gap between a person's abilities, the demands of the task, and barriers within the environment. Connell et al.²¹ in their scoping study for the Department of Health and Ageing on the use of AT by frail older people in the community concluded that assistive technology has 'enormous potential to improve the quality of life, mobility and independence of many Australians, enabling them to continue living at home and to remain connected to their communities for longer'.^(p.6)

There is some relationship between severity of impairment and complexity of AT required (for example, spinal cord injury and the need for pressure care, powered mobility and environmental controls); but, generally speaking, it is the tailoring of the AT to the person

¹⁷ Developed by N Layton in relation to definitions of complex AT for NDIS. 2013.

¹⁸ See Cook A, Hussey S, eds. *Assistive technologies: principles and practice*. St. Louis: Mosby Elsevier; 2008. As well as literature summaries in Connell et al. 2008; and Layton et al. 2010.

¹⁹ Silver D. *Raising the standard: the final report of a feasibility study for a scheme to rate, approve or accredit assistive technology*. Middlesex: Years Ahead; 2011.

²⁰ Lofqvist C, Nygren C, Szeman Z, Iwarsson S. Assistive devices among very old people in five European countries. *Scand J Occ Therapy* 2005;12.

²¹ Connell J, Grealy C, Olver K, Power J (2008) *Comprehensive scoping study on the use of assistive technology by frail older people living in the community*. Canberra, Urbis for the Department of Health and Ageing. (p.6)

and the situation (regardless of AT complexity) that is critical in achieving outcomes.²² Appendix 1 outlines studies of the effectiveness of AT deemed 'non-complex'.

How is non-complex AT best provided?

Most AT is commercially available and can be purchased by anyone with the funds to do so. AT is deemed a 'merit good' in most Western societies. This means governments take a role in ensuring supply and affordability, for example through subsidies or provision programs. Recognition as a merit good means AT is seen as an effective intervention, yet one that may have prohibitive costs. Government provision of merit goods such as AT also recognises the financial impact of the thin margin of health and high costs of disability that many people face, and ensures people who need AT can obtain it, despite financial factors. In Australia, and many other countries, the policies and programs developed to provide AT are also designed to ensure supply is linked to need. As a mechanism for this, AT has usually been provided via tertiary qualified practitioners.²³ Little evidence is available as to the uptake of AT by Australians²⁴ although a major study of elders in Europe (n – 1,918) noted 65 per cent reported they had, and used, one or more assistive devices (AD), and 24 per cent reported an unfulfilled need.²⁵

Early intervention

In terms of good practice in the provision of AT, Connell et al.²⁶ found the evidence suggests that assistive technology is 'most effective when older people are provided with early intervention, careful assessment, the correct prescription and home-based follow-up training in how to use assistive technologies'.^(p.6) The study lists a range of existing barriers, however, including:

- a lack of clear access and information points for people to learn about assistive technology and be properly assessed
- a lack of follow-up home-based training on the use and basic maintenance of technologies, which is a contributor to the abandonment of aids and devices
- poor design and unattractive appearance of aids and devices, [which] compounds issues concerning self-image, feelings of stigma and denial about disability and ageing

²² Scherer M. Policy issues in evaluating and selecting assistive technology and other resources for persons with disabilities in Proceedings of NIDRR and APA Conference Bridging gaps: Refining the disability research agenda for rehabilitation and the social sciences. Washington DC: National Institute for Disability and Rehabilitation Research; 2002.

²³ ARATA. The ARATA 'Making a difference with AT' papers. Silvan: ARATA; 2012.

²⁴ Hobbs D, Close J, Downing A, Reynolds K, Walker L. Developing a national research and development centre in assistive technologies for independent living. Aust Hlth Rev 2009;33:152–160.

²⁵ Lofqvist C, Nygren C, Szeman Z, Iwarsson S. Assistive devices among very old people in five European countries. Scand J of Occ Therapy 2005;12.

²⁶ Connell J, Grealy C, Olver K, Power J. Comprehensive scoping study on the use of assistive technology by frail older people living in the community. Canberra: Urbis, for the Department of Health and Ageing; 2008. p.6..

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

- a lack of consideration of older people's views, attitudes and tastes concerning the design of technologies
- limited research carried out involving older people both in Australia and overseas
- apprehension of older people regarding the cost and affordability of assistive technologies.^(p.6)

A growing evidence base demonstrates that 'small amounts of service, provided early, are worthwhile [and that] greater recognition needs to be given to the benefits of aids and equipment, and that early use of community services is likely to be of more benefit for carers and care recipients than if service use is delayed'.²⁷ In the first randomised controlled trial evaluating restorative home care, Morgan Parsons et al. concluded that for older people, 'functional capacity inside, and more importantly outside the home environment, is essential for independent living [and that] traditional models of home care often miss the opportunity to maximize an older person's physical function and independence'.^{28 (p.1015)}

Is an AT practitioner necessary?

This broad, underpinning question relates to both historical professional scope of practice and roles, as well as the actual competencies (skills, knowledge and attitude) involved in assessment and management of clients' needs in relation to AT. The majority of the rehabilitation outcomes literature is premised upon interventions delivered by practitioners (such as physiotherapists, occupational therapists (OTs), speech pathologists) or allied health assistants for whom clear role boundaries are defined. Attention is turning to delivery of rehabilitation or re-ablement services in the home, but largely without discussion of any devolution of roles or skill sets to traditional home care workers. For example, in the physical therapy literature, Cook et al.²⁹ determined:

Rehabilitation professionals have the skills and competencies to set patients on the right course in their recovery, prevent further declines, and keep them safe and avoid falls. This study contributes to the evidence that PT [physiotherapy] not only contribute by improving functional status, but also help avoid costlier services^(p.1046)

Several studies from the OT literature examine whether support workers can replace therapy staff. Carrie, Levasseur and Mullins noted that devolving clinical tasks to support workers was a way around the shortage of occupational therapy community services in Quebec, but concluded that the use of support workers may result in a partial response to complex needs

²⁷ Wells Y, Foreman P, Ryburn B. Community care for older Australians: issues and future directions. In Nay R, Garratt S, eds. Older people: issues and innovations in care. 2009. p. 88.

²⁸ Morgan Parsons J, Sheridan N, Rouse P, Robinson R, Connolly M. A randomized controlled trial to determine the effect of a model of restorative home care on physical function and social support among older people. Archives Phys Med and Rehab 2013;94:1015–1022.

²⁹ Cook R, Berg K, Lee K, Poss J, Hirdes J, Stolee P. Rehabilitation in home care is associated with functional improvement and preferred discharge. Arch Phys Med and Rehab 2013;94:1038–1047.

and compromise the right to and quality of services.³⁰ Identifying indicators of ‘complexity’ is one strategy to manage the issue of identifying when an AT practitioner is required. A recent empirical study by Guay et al.³¹ researched the characteristics of ‘straightforward cases’ in the example of bathing tasks to establish when ancillary personnel could be used for bathing assessment instead of occupational therapists. Table 1 depicts the indicators of ‘straightforward cases’, and the authors conclude that clients who fall outside these indicators require referral to an occupational therapist for bathing assessment.

Table 1 Characteristics of ‘straightforward cases’ (Guay et al. 2012)

Indicators of ‘straightforward cases’ for bathing tasks (61 characteristics of bathing tasks reduced to 10 by Expert Panel analysis (ref: p.567))	
OCCUPATION	1. being able to get into tub or shower with or without mobility devices but without human assistance
	2. not needing/wishing to soak
PERSON	3. standard morphology
	4. stable medical condition
	5. no medical restrictions
	6. able to stand up (with or without support for five seconds)
	7. being able to follow simple instructions
ENVIRONMENT	8. using standard shower or bath at home

From a disability perspective, however, the perspective of professionals is seen as problematic. Goble describes as ‘irrelevant and oppressive’ the experience of being subjected to a focus on ‘whatever the expert professional regards as the particular functional deficit that is most significant’.³² What has been described as the gate-keeping role of professionals may entrench power differentials between professional and consumer, as Goggin and Newell point out:

There are many benefits to be gained from health professionals such as occupational therapists helping to select the right wheelchair for a consumer. The problem is that health professionals are used as gatekeepers, and rules are such that clients need to know how to identify and act in order to qualify’.³³

³⁰ Carrier A, Levasseur M, Mullins G. Accessibility of occupational therapy community services: a legal, ethical, and clinical analysis. *Occ Therapy in Hlth Care* 2010;24:360–76.

³¹ Guay M, Dubois M, Desrosiers J, Robitaille J. Identifying characteristics of 'straightforward cases' for which support personnel could recommend home bathing equipment. *Brit J Occ Therapy* 2012;75:563-569.

³² Goble, C. Dependence, independence and normality. In Swain J, French S, Barnes C, Thomas C, eds. *Disabling barriers – enabling environments*. Sage Publications; 2004. pp. 42–43.

³³ Goggin G, Newell C, eds. *Disability in Australia: exposing a social apartheid*. Sydney: University of NSW Press; 2005. p. 55.

And finally, a muted but consistent theme in the disability literature suggests that the direct care worker, who is 'on the ground' and often knows the client well, holds valuable knowledge and is an underutilised resource.

The position taken by professional associations on this issue differs across jurisdictions. Australia's Occupational Therapy Association does not have a published position on the role of OTs in relation to AT provision, but has moved to articulate the role of OTs in the context of participant choice and control in the new NDIS context through their Therapy Choices site <http://www.therapychoices.org.au/>. The United States is strongly influenced by payment arrangements, with a recent Act clarifying professional roles for complex technology,³⁴ and position papers focussing on OT and OT assistant skills, and specialisation in AT-EI.³⁵ The most pragmatic response comes from the British Association of Occupational Therapy (BAOT), grounded in the Care Services Efficiency Delivery (CSED) review of equipment services and the subsequent Transforming Community Equipment Services (TCES or retail model). BAOT'S 2008 Position Statement, *The value of occupational therapy and its contribution to adult social service users and their carers*³⁶, states OTs will:

- train and support others to carry out those straight-forward tasks that occupational therapists may have undertaken in the past i.e. assessments of individuals who have non-complex needs and tasks that may involve fast tracking of low cost and low cost items of equipment;
- identify the current areas of engagement that can be managed by the service user or their carer/advocate and support them to exercise control and achieve their aspirations and needs. This may involve working with service users who manage self-directed budgets.^(p.2)

Additionally, BAOT identifies a role for the College of OT in protecting and developing alternate pathways in their Position Statement on Transforming Community Equipment Services,³⁷ ensuring that:

- Assessors work to minimum acceptable standards, have received appropriate training and work within the limits of their abilities.
- All equipment users receive services that are provided by accredited retailers or suppliers of equipment.
- Specialist or bespoke equipment is provided by appropriately trained and skilled retailers and suppliers, who will work with occupational therapists and equipment

³⁴ United States of America Congress. Ensuring access to quality complex rehabilitation technology Act of 2012. 112th Congress ed. 2012.

³⁵ AOTA. Technology knowledge and skills paper: specialized knowledge and skills in technology and environmental interventions for occupational therapy practice. American Occupational Therapy Association; 2009.

³⁶ BAOT. The value of occupational therapy and its contribution to adult social service users and their carers – position statement: England; 2008.

³⁷ BAOT. Position statement on transforming community equipment services. England: 2008.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

users during assessment and provision and ensure products are set up correctly to fit each equipment user's individual needs.

- Equipment for those people who need help after surgery or because they are terminally ill, for example short-term loans, is available promptly and removed in a timely manner.
- Provision is made for those people who cannot get to retail outlets or cannot assemble and fit equipment themselves.
- Equipment users receive information to help them select equipment, use and care for equipment safely, and learn about ownership and their responsibilities, for example maintenance. ^(p.2)

Of particular note is the comment (below) regarding inappropriate levels of equipment provision, perhaps indicating that such judgments need to be taught as competencies to non-OT prescribers:

Occupational therapists have the skills and knowledge to advise about over-use or over-specification of equipment and timely withdrawal of equipment e.g. during recovery or rehabilitation'. ^(p.1)

Appendix 2 contains additional literature on practice and competency standards for non-complex AT. It is in this context that several models of service delivery have emerged.

Models of service delivery for AT provision

Given this background, and in the context of the increasing aging and disabled population, it is important to examine changing service models which impact on AT provision, particularly 'low-risk' consumers and non-complex and, therefore, arguably 'low-risk' AT.

Home and Community Care (HACC) context

Current policy reforms have led to a re-examination of HACC in states and territories with the exemption of WA and Victoria, and a shifting of responsibilities and roles between states and Commonwealth governments.³⁸ Additionally, theoretical developments in the field of ageing and community care have led to examination of the role and extent of HACC services to aged and disabled Australians. As Wells et al.³⁹ describe:

A key concept that has emerged in attempting to rethink how to address the needs and maximise the health and wellbeing of our ageing population is that of 'successful ageing'. Impetus for a conceptual shift towards more active, restorative models of care is mirrored by conceptual developments that have occurred within gerontology about what constitutes successful ageing. ^(p.85)

³⁸ WA HACC manual. Perth: Department of Health; 2013.

³⁹ Wells Y, Foreman P, Ryburn B. Community care for older Australians: issues and future directions. In Nay R, Garratt S, eds. Older people: issues and innovations in care. 2009.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

A 2008 review of conceptual and empirical literature by the Australian Institute of Primary Care and Ageing (AIPC)⁴⁰ notes a substantial theoretical base concerning the rehabilitation or re-enablement of occupational and social functions in frail older adults with chronic illness, based on fundamental concepts such as the disablement process.⁴¹ AIPCA note little peer-reviewed published evidence about the efficacy of multi-component programs within HACC services, but a 'growing body of grey literature, including service evaluations and government reports, outlines the success of pilot programs that have been developed [including] exercise and balance programs, health promotion and programs involving the provision of aids and equipment'.^(p.36)

Home Care – Consumer Directed Care (CDC)

As part of the *Living Longer Living Better* aged care reforms, the Australian Government expanded home care from 1 August 2013. Intending to assist people to remain living at home for as long as possible, and to introduce more choice and flexibility for people receiving care at home, the scheme offers 'help with a range of services like cleaning and preparing meals, gardening, assistance with showering, or with transport so that you can go shopping or attend appointments'.⁴²

Home care levels have increased in range to cater for four levels of need:

- Home Care Level 1 – to support people with basic care needs.
- Home Care Level 2 – to support people with low care needs.
- Home Care Level 3 – to support people with intermediate care needs.
- Home Care Level 4 – to support people with high care needs.⁴³

Table 2 outlines the services provided at these various levels.

Table 2 Commonwealth home care levels and services

Types of Services Provided
<ul style="list-style-type: none">• Personal care: such as help with showering, dressing, mobility, meal preparation and eating, and fitting sensory communication aids.• Support services: such as help with laundry, house cleaning, gardening, basic home maintenance, home modifications (related to care needs), and transport to help you do shopping, visit your doctor or attend social activities.• Clinical care: nursing, allied health and other therapies.• Other services: such as remote monitoring technology (where appropriate) and assistive technology, including devices that assist mobility, communication and personal safety where these services are identified in your care plan.

⁴⁰ Ryburn B, Wells Y, Foreman P. The active service model: A conceptual and empirical review of recent Australian and international literature (1996–2007). Bundoora: Australian Institute of Primary Care, La Trobe University; 2008.

⁴¹ Verbrugge L, Jette A. The disablement process. Soc Science Med 1994;38:1–14.

⁴² Available from www.livinglongerlivingbetter.gov.au.

⁴³ Cited November 2013]. Available from <http://www.livinglongerlivingbetter.gov.au/internet/living/publishing.nsf/Content/home-care-packages-program-consumer-factsheet>.

- Supplements: to assist people who have an ongoing medical need for oxygen support, and people who require enteral feeding.⁴⁴

Re-ablement service model

Re-ablement refers to the introduction of support within the home environment, currently realised in Western Australian through initiatives such as the Home Independence Program (HIP) and Personal Enablement Program (PEP).⁴⁵

Re-ablement services are part of England's recent health and social care policy agenda, and are intended to help people regain skills and confidence to live more independently.^{46,47}

Emerging research demonstrates some positive impacts in terms of outcomes for people recovering from falls and acute illnesses, and potential for longer-term cost savings. Effective re-ablement entails:

Good initial staff training and ongoing supervision; clear outcomes for users and flexibility to adapt these as needs change; and prompt supply of equipment. Wider environmental success factors include shared vision; access to specialist support and adequate capacity in long-term home care.⁴⁸

Re-ablement has been trialled in Australia,^{49 50} although the program content is not clearly distinguished from parallel interventions variously described as including OT, maintaining activities of daily living, task analysis and redesign, use of AT, physical therapy, social rehabilitation and health education.

Wellness service model

Wellness refers to a whole of person approach, which 'encompasses physical and psychological wellbeing, individual health, community connections, practical support and whatever gives each individual's life meaning and purpose'.⁵¹ Evidence suggests that adopting strategies for wellness wherever possible is advantageous in all age groups, including the oldest. Strategies to enhance wellness include physical activity (for example,

⁴⁴ *ibid.*.

⁴⁵ Silver Chain. HIP and PEP. [cited November 2013]. Available from: <http://www.SilverChain.org.au/group/search/?query=home+independence+program&submit.x=0&submit.y=0>

⁴⁶ Rabiee P, Glendinning C. Organisation and delivery of home care re-ablement: what makes a difference? *Hlth Soc Care in the Comm* 2011;19:495–503.

⁴⁷ Ryburn B, Wells Y, Foreman P. Enabling independence: restorative approaches to home care provision for frail older adults. *Hlth Soc Care in the Comm* 2009;17:225–234.

⁴⁸ Raibiee P, Glendinning C. Organisation and delivery of home care re-ablement: what makes a difference? *Hlth Soc Care in the Comm* 2011;19:495–503.

⁴⁹ ASLaRC. Re-ablement of older people in north coast NSW. NSW: Aged Services Learning and Research Centre; 2009.

⁵⁰ Towards an enabling approach in community care. Sydney: Ageing, Disability and Home Care, Department of Human Services. NSW; 2010.

⁵¹ O'Connell H. Challenging community care with wellness: an implementation overview of the WA HACC program's wellness approach. Perth: CommunityWest and HACC; 2013. p. 26.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

through shopping, cooking and gardening), utilising aids and equipment, improving nutrition, developing new coping strategies to deal with episodes of depressed mood or stress, or increasing supportive social networks to avoid social isolation.⁵² Wellness as a service model is best realised in Western Australia's *Wellness Approach to Community Care*.⁵³ From a theoretical perspective, the wellness model builds on disablement theory,²⁸ conceptualising illness/dependency versus wellness/independence cycles and identifying a range of measures to minimise the former and build the latter.

The WA government notes substantial rollout within WA in a background paper in 2010,⁵⁴ stating, 'over 80% of HACC providers in West Australia have commenced organisational changes towards implementing a Wellness Approach'. The key 'wellness' underpinnings for HACC in WA are identified as follows: a wellness approach –

- addresses a client's needs in a holistic way considering their strengths, abilities and difficulties
- enables a client to set their own goals and make decisions about the support they receive
- ensures the support is delivered in partnership with the client
- encourages clients to remain involved in their community and maintain social connections
- supports client choice and decision-making.⁵⁵

Several other states in Australia have adopted or incorporated wellness ideas into their models of service delivery (reported to be South Australia and Victoria).

Active service model (ASM)

To some extent, wellness is an element of the active service model, which implies the coming together of a range of strategies and services to promote wellness and independence, with the specific intent of avoiding dependency.⁵⁶ These authors reviewed the conceptual and empirical literature pertaining to the ASM for the Australian Institute of Primary Care in 2008. They note a substantial theoretical base incorporating concepts such as the disablement process, stating:

Increasingly the literature has demonstrated it is often possible to rehabilitate or re-enable occupational and social functions in frail older adults with chronic illness ... A

⁵² Wells Y, Foreman P, Ryburn B. Community care for older Australians: issues and future directions. In Nay R, Garratt S, eds. *Older people: issues and innovations in care*. 2009. p. 90.

⁵³ O'Connell, H. *The WATCH project: wellness approach to community homecare* Perth. Perth: CommunityWest Inc. and Western Australian Department of Health, Home and Community Care; 2006.

⁵⁴ WA Department of Health; Victorian Department of Health. *Background paper on wellness and re-ablement approaches to delivering home and community care services in WA and Victoria*. 2010. p. 8.

⁵⁵ WA HACC manual. Perth: Department of Health; 2013. p. 17.

⁵⁶ Ryburn B, Wells Y, Foreman P. *The active service model: A conceptual and empirical review of recent Australian and international literature (1996–2007)*. Bundoora: Australian Institute of Primary Care, La Trobe University; 2008.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

variety of the specific elements of an Active Service Model such as exercise and balance programs, health promotion and programs involving the provision of aids and equipment, have been trialled, with largely positive outcomes to date. The majority of such studies have been trialled as separate programs – as single components outside of existing HACC type services (i.e., typically not undertaken by HACC staff) – and are not directly compared to ‘standard’ services. To date, there is only a small body of published and grey literature that has directly investigated the efficacy of multi-component programs more consistent with the full breadth of an active service approach within the context of home and community care services. Almost all the research and evaluation undertaken within home and community services has specifically investigated the effects of intensive, time-limited programs ... In Australia, while there is little peer reviewed published evidence about the efficacy of multi-component programs within HACC services, a growing body of grey literature, including service evaluations and government reports, outlines the success of pilot programs that have been developed.

Current ASM initiatives were located in South Australia⁵⁷ and in Victoria, with the Victorian initiative including ‘exercise (including low level activities such as shopping, cooking and gardening), using aids and equipment, improving nutrition, developing new ways of coping to deal with depressed mood or stress’.⁵⁸ Improvements attributed to the ASM were in wellbeing and morale for the older person, decrease in hospital admissions and a subsequent delay of any need for residential care.

Recent critiques of the ASM implementation in one region of Victoria have been taken up by community health occupational therapists and sent for consideration to Occupational Therapy Australia and the Allied Health Practitioner Registration Board from a scope of practice perspective.⁵⁹ Criticisms focus on the use of ASM to ‘bypass’ extensive wait times for community health OT home assessments, and the lack of training of HACC staff (assessors and home care workers). A discussion paper was submitted to HACC suggesting a framework that:

... addresses the complexity of equipment provision in the context of client complexity and differences in the background and training of non-clinical and non-A&E trained staff (for example, HACC Assessors). The key recommendations of this framework relate to three broad areas including model development and implementation requirements, supports and resources.

The discussion paper makes the following broad recommendations:

⁵⁷ SA HACC stakeholder workshop. In HACC ed. South Australia Government of South Australia. 2010.

⁵⁸ Department of Human Services. *Victorian HACC Active Service Model Discussion Paper*. Melbourne, Rural and Regional Health and Aged Care Services Division, Department of Human Services, 2008. p. 5.

⁵⁹ Valentine R, Busch K. Proposed active service model framework for provision of small aids by City of Maribyrnong home and community care assessment officers. Maribyrnong: Western Region Health Centre; 2012. p. 1.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

1. Adoption of a new model for equipment prescription taking on board the relevant aspects of two current models (SWEP Prescriber Registration and Credentialing Framework and the Trans-professional competencies model of Western Health, Care Co-ordination).
2. Consideration of clinical factors with the aim of a) identifying the need for referral or consultation with an appropriately trained occupational therapist and b) identifying clinical indicators for the provision of equipment.
3. For further work to be completed relating to model evaluation and further definition and training of relevant staff relating to core competencies working within the proposed model.

Realising service models in practice

The UK experience: community equipment schemes and trusted assessors

The UK commenced service sector restructure, with a focus on retail options for equipment, several years ahead of Australia. A range of service initiatives includes telecare, housing, integrated care and support pathway planning, and homecare re-ablement (described as focusing on skills for daily living for people with poor physical or mental health to help them accommodate their illness or condition by learning or re-learning the skills necessary for daily living).⁶⁰

A key development concerning AT and service delivery in the UK has been the 'Transforming Community Equipment' or TCES initiative.⁶¹ Here, AT is defined by complexity across three levels:

- Community Equipment: A range of products designed to support independence and safety (predominantly within the home) and provided through Community Equipment Services, run by health and social services (Including products for sensory impairments, communication, continence, mobility, safety, comfort and self-care).
- Standard equipment: Is commonly used to describe high volume products that are regularly provided by the CES, as set out in the catalogue for the service.
- Special equipment: Covers 'one-off' items that are not within the standard range, but are required to meet an individual need.

This means community equipment (simple aids to daily living such as eating and drinking utensils, grab rails and raised toilet seats, or more complex equipment such as beds, hoists and lifts) is provided via support workers. The role of support workers in providing community equipment is key to viability and cost containment in the TCES. In many areas staff (including healthcare assistants, physiotherapy and occupational therapy assistants, social work assistants for visually or hearing impaired people, personal or care assistants,

⁶⁰ Available from: <http://www.csed.dh.gov.uk/TCES/Background/>.

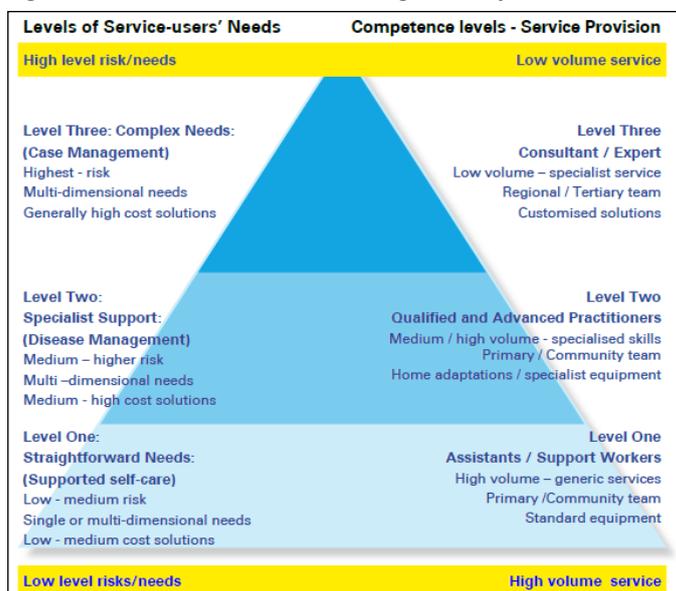
⁶¹ Winchcombe M, Ballinger C. A competence framework for trusted assessors. UK: Assist UK; 2005. p. 8

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

drivers/fitters) can issue equipment after undertaking a (two-week) Community Equipment Scheme induction course – covering what equipment is available, who can issue what, ordering and supply procedures, and health and safety issues. TCES has been nationally adopted,^{62,63} with detailed national catalogues,⁶⁴ staff training, and accompanying competencies to support the initiative. An extensive prescriber and client package, which identifies a range of AT and competencies, can be found at <http://www.csed.dh.gov.uk/TCES/>.

Key providers of trusted assessor training (Disabled Living Foundation; and Maggie Winchcombe, director of 'Years Ahead') were interviewed in September 2013 by the associate researcher as part of a study tour of UK and Europe. Both organisations have extensive experience in training trusted assessors, and have developed different training approaches that target learners of basic AT competency (see Figure 1). Anecdotal feedback from both indicates that training of support staff is in some ways different to training therapy staff; specifically, certificate level learners have not necessarily come from a culture of 'lifelong learning / continuous professional development', making it difficult to embed the ongoing and iterative process of learning about new AT and developing skills. Also, workers who have tertiary backgrounds (such as social workers) may not be motivated to embed new learning in their daily practice, and attention must be paid to the context for learning – that is, whether staff are required to act as trusted assessors in addition to their perceived core roles.

Figure 1 Winchcombe and Ballinger Competence Framework⁶⁵



⁶² Department of Health. Evaluating the transforming community equipment pilots. 2008 [cited 11 October]. Available from <http://www.csed.dh.gov.uk/TCES>.

⁶³ Frost P. Transforming community equipment services. *Occ Therapy News* 2007;15 (11): p.29.

⁶⁴ Available from <http://www.national-catalogue.org/smartassist/nationalcatalogue>.

⁶⁵ Winchcombe M, Ballinger C. A Competence framework for trusted assessors. UK: Assist UK; 2005. pp. 37-40.

The WA experience

Western Australia trialled and implemented the Wellness Model as described above, which has been widely adopted within home care, despite the significant multilevel cultural changes noted to be integral to its implementation.^{66, 67, 68,69} As with other Australian jurisdictions, many service providers are present in the home care and AT sector and efforts are being made to map and coordinate pathways across and between services.⁷⁰ The WA Department of Health policy documentation⁷¹ concerning aids, equipment and home modifications identifies the status of the AT prescriber as a graduate health professional, stating that 'Aids, equipment and home modifications will only be provided by WA Health after assessment by an appropriate WA Health professional that indicates clinical need',^(p. 7) and offers the following definitions:

- Aid, equipment: A portable, movable or freestanding item that assists in maintaining or improving function or safety in activities of daily living.
- Basic: The most cost-effective option or the simplest solution required to address the clinical need whilst taking safety and standards into account.
- Home modifications: This is a general term used throughout this document to cover all installations and structural modifications. The terms 'installations' or 'structural modifications' are used when the issue pertains specifically to either of these.
- Structural modification: Structural changes to the layout or fixtures of a home (for example, major bathroom modification with new layout and fixtures, new doorways). These range in price and are generally higher cost items.^(p.16)

⁶⁶ Skinner C, Clark K, Cukrov C. Home and community care wellness implementation evaluation study. WA: CommunityWest; 2009.

⁶⁷ The wellness approach to community care information booklet. Perth: HACC and CommunityWest; 2010.

⁶⁸ CommunityWest. The WA HACC wellness approach: a resource for WA home and community care staff. Perth: CommunityWest; 2009 updated 2011.

⁶⁹ O'Connell H. Challenging community care with wellness: an implementation overview of the WA HACC program's wellness approach. Perth: CommunityWest and HACC; 2013.

⁷⁰ Clay G. WA assessment framework suggested referral pathways for equipment and home modifications for HACC eligible clients. Perth; 2011.

⁷¹ Department of Health. WA health policy: provision of aids, equipment and home modifications. Perth: Government of Western Australia; 2011. p. 16.

Targeting AT and related strategies for the HACC population

WA Home and Community Care (HACC) services are available to frail aged people, younger people with a disability, and their carers.⁷² A range of services are provided: domestic assistance, including help with cleaning, washing and shopping; personal care, such as help with bathing, dressing, grooming and eating; home maintenance and home modification; assistance with food preparation in the home; assessment, client care coordination and case management. The literature⁷³ foreshadows an increased role for community workers related to telemonitoring (remote checking of health states, for example falls or blood pressure) and telecare (use of technology such as Skype to connect with a consumer); however, this is not currently occurring at the HACC level, and was therefore not included in this study.

Given the focus of HACC on supporting activities of daily living, there is scope to identify the related assistive technology to support these. The matched AT and areas of daily living are listed in Table 3 (drawn from WA Wellness Training Module, ILCWA⁷⁴).

Table 3 Daily living areas in scope for HACC: of non-complex AT and related strategies

Activity of daily living	Example devices	
Self-care activities		
Walking, transferring and mobility	Walking sticks Wheelie walkers Slide pads and transfer discs	Manual wheelchair Chair raisers Threshold ramps
Showering, grooming, dressing and clothing	Hand showers Handrails Shower stools Buttonhooks Long-handled toe washers	Shoe horns and shoe doffers Dressing sticks Long-handled combs Tap turners Long-handled sponges
Toileting and continence	Over toilet frames Toilet raisers	Kylie sheets Reusable continence wear
Eating, drinking and meal preparation	Adapted crockery and cutlery Non-slip kitchenware Ergonomic knives	Kitchen trolleys One-handed breadboards Two-handed cups
Medication management	Dossette boxes Pill splitters	Eye drop dispensers Medication timers
Communication, writing,	Communication cards	Personal alarms

⁷² WA HACC Manual. Perth: Department of Health; 2013. p.6.

⁷³ Doughty K, Steele C. The use of telecare and community equipment to improve joint working across health and social care. *J Assist Technologies* 2009;3:36-43.

⁷⁴ CommunityWest. Wellness approach to community home care: equipment and resource guide. Perth: HACC and CommunityWest; 2007.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

reading, hearing, telephoning, emergency call systems, money management	Magnifying glasses Universal remote control Adapted pen grips	GPS and reminder systems Modified headphones for TV
Housework activities		
Vacuuming, sweeping/mopping, cleaning the bath or shower, dusting, making beds, clothes washing, ironing, drying the washing	Lightweight mops and brooms Lightweight or automatic vacuum cleaners Microfibre cleaning mitts Adapted bedmaking techniques Wheeled laundry trolley	Furniture raisers (to enable cleaning) Adapted mop bucket Lightweight iron Adapted pegs, Pull out washing line or clothes horse
Community access		
Transferring into/out of cars/vehicles; shopping and unpacking	Wheeled shopping trolleys Methods to load shopping Methods to push trolleys	Swivel disc for car seat Handle adaptation for car Transfers
Recreation		
Maintaining the garden	Adapted/lightweight gardening tools Long-handled weeder	Raised beds Garden kneeler
Leisure pursuits	Tailored information / communication technology Embroidery hoop, needle-threader	Accessible board games Nintendo Wii Bookstands

AT scope is identified as both the hard and soft technologies and is included in the Equipment Resource Guide⁷⁵ in order to reflect what is currently being imparted to HACC staff by ILCWA WA as a training package. Some additional devices were added to a 'recreation' category. Table 4 lists the specific therapeutic strategies targeted at the HACC population.

Table 4 Work simplification and energy conservation principles for HACC population

PRINCIPLES OF WORK SIMPLIFICATION	How to do things easier Do the activity in the most efficient and safe way Use suitable work heights Store items for frequency of use
PRINCIPLES OF ENERGY CONSERVATION	Support your client to plan ahead Balance activity with rest periods

⁷⁵ *ibid.*

Conclusion

To conclude, contemporary service models such as the re-ablement, wellness, and active support models bring community rehabilitation and active living concepts into the community aged care arena. These service models are based on evidence that additional and focused support (including assistive technology) leads to increased outcomes for older populations. Re-ablement, technology-based interventions, and information and advice were found to be the top three prevention interventions used in a study of nine local government authorities by the University of Birmingham. These interventions were all delivered by core teams of specialist home carers with input from occupational therapists as key workers.⁷⁶

If the assessment and provision of AT is to be a more standard and expected component of support for older people living at home, this raises the twin issue of *which* AT is in scope and *who* is best placed to undertake assessment and provision. A scan of current policies and literature in this area suggests that the AT in scope could be termed 'non-complex' and is defined for this Report as:

Products that augment daily living activities, usually in the home. Non-complex AT may be low technology, low cost and include everyday technologies. The common feature of non-complex AT is that AT users can readily identify and trial devices and ascertain their likely value based on their daily experience.

Building on international and Australian experiences, there is considerable scope and impetus to open up the role of non-complex AT needs identification or assessment, as well as referral and provision to include pathways to AT via non-professionals. The re-ablement model expects allied health practitioners to administer the AT elements of re-ablement programs. Within the Silver Chain re-ablement programs in WA (that is, HIP or PEP), any of the allied health team will recommend devices. In addition, the specially trained HIP coordinators, who do not have an allied health background, will also recommend equipment to clients receiving support as part of HIP or PEP.⁷⁷ In contrast, the UK's Trusted Assessor role (part of the Transforming Community Equipment initiatives) utilises support workers on the frontline to ascertain the need for and delivery of AT. Both local and international experience also highlights the role of training and professional development to suitably equip identified personnel to undertake this role effectively.

⁷⁶ Allen K, Glasby J. Miller R. Prevention services, social care and older people: much discussed but little researched? University of Birmingham, NIHR School for Social Care Research; 2011–2012.

⁷⁷ Personal communication Hilary O'Connell 23/12/2013.

Section 2: Research design

Project Description

The project aims:

1. To identify and evaluate the existing pathways for WA HACC clients in accessing non-complex AT, and
2. To identify ways to improve access to and delivery of such assistive technology to this population.

In the context of the WAAF, it sought to answer the following question:

How can aids and equipment be most effectively assessed, accessed, funded and used?

Data collection was organised to address the following research sub-questions:

- What items are, or should be, included in an understanding of 'non-complex assistive technology' that is commonly identified for, or useful to, HACC clients in WA?
- What pathways are RAS assessors in WA currently using to refer HACC clients to non-complex assistive technology?
- What is the effectiveness of current pathways of access and funding to non-complex equipment for HACC clients in WA?
- How could the access to and funding of non-complex assistive technology for WA HACC clients be improved?

The project includes a literature review to determine what constitutes desired non-complex assistive technology for this population, and an empirical study to evaluate current pathways for access, and effectiveness of these pathways. As little evaluative data is available about effectiveness of access pathways, data was collected via interview or focus group from three groups: RAS assessors; HACC clients; suppliers and stakeholders. Appendix 3 outlines literature on outcome measures selected to guide the method.

Research oversight

Steering Committee

The WA Independent Living Centre (ILCWA) managed and coordinated the study, employing the research team (Dr Erin Wilson and Natasha Layton as researchers, and Alex Andrews as research assistant based with the ILCWA.) The project included a steering committee of stakeholders with representation from ILCWA, the WA Department of Health's Aged and Continuing Care Directorate (HACC) and CommunityWest. These members met periodically (usually bimonthly) via teleconference with the researchers to inform project design and operation. The ILCWA managed the administrative and financial aspects of the HACC-funded project.

Partnerships

It was vital for the study to be conducted in partnership with service providers and to establish links to the supplier retail chain. Extensive communication by the steering group and researchers occurred to scope out stakeholders in WA. The ILCWA utilised its strong existing relationships with equipment suppliers in WA to consult with this industry, and initial discussions held with CommunityWest gained support for the proposal and strengthened the methodology. Collaboration was fostered with the service providers who currently support access for HACC clients to equipment, including TADWA; OT Departments in Health Services / hospitals; Community Aids and Equipment program prescribers (CAEP) and Department of Housing OTs; private occupational therapists; day centre program co-ordinators; and other service providers including Silver Chain enablement programs, Association for the Blind, Motor Neurone Disease Society, Multiple Sclerosis Society, Parkinson's Disease Association.

Ethical and privacy considerations

Ethical approval for the research was provided by Deakin University. Recruitment, including the provision of plain language statements and consent forms, occurred in line with ethical requirements. Participation in the research involved participating in either a one-on-one interview or a focus group discussion. Audio-recordings and transcripts were made of all focus groups (3) and interviews (37) and arrangements for data anonymity and storage were made according to ethical standards. This included use of pseudonyms in reporting HACC client case studies. Ownership of the information is vested with the WA Independent Living Centre, with joint copyright with the two principal researchers.

Research Methods

Recruitment and Sample

Data was collected via interview or focus group from three groups: RAS assessors; HACC clients; AT suppliers and other AT stakeholders. Focus groups and pilot interviews were conducted in May 2013 by the associate researcher and research assistant (both occupational therapists). Initial data analysis then informed the final question set for HACC clients, RAS assessors and the remaining individually interviewed AT stakeholders. Concurrent AT stakeholder interviews, RAS interviews and HACC client interviews were conducted between May and October 2013 by the research assistant.

RAS (Regional Assessment Service) assessors (N=19)

A pilot interview with a RAS team leader was conducted by the associate researcher and research assistant in May 2013. Subsequently, two RAS assessors (one novice, one more experienced) were sought from nine WA Regional Assessment Services. The research assistant then visited each facility to conduct the interview, or assessors were interviewed in locations of their choice (local library, or own home). A total of 19 RAS assessors⁷⁸ representing nine teams were interviewed.

HACC clients (n=7)

The project was advertised through fliers, and packs containing the plain language statement and consent forms were handed to HACC clients by RAS assessors. Following viewing of material, interested participants made contact with researchers and had the opportunity to ask questions about the research. HACC clients were offered the choice of meeting with the research assistant at a neutral venue such as a local community health centre meeting room or Independent Living Centre, or in their home. Standard safety measures for community home visits were applied (schedule of visits lodged with the parent organisation; researcher to have mobile phone and ascertain others present at time of visit by phone). Interviews ranged between 45 and 90 minutes. All data was de-identified, and pseudonyms given to all HACC clients for reporting purposes.

Equipment suppliers and stakeholders (n=41) (referred to as 'AT stakeholders' throughout the report)

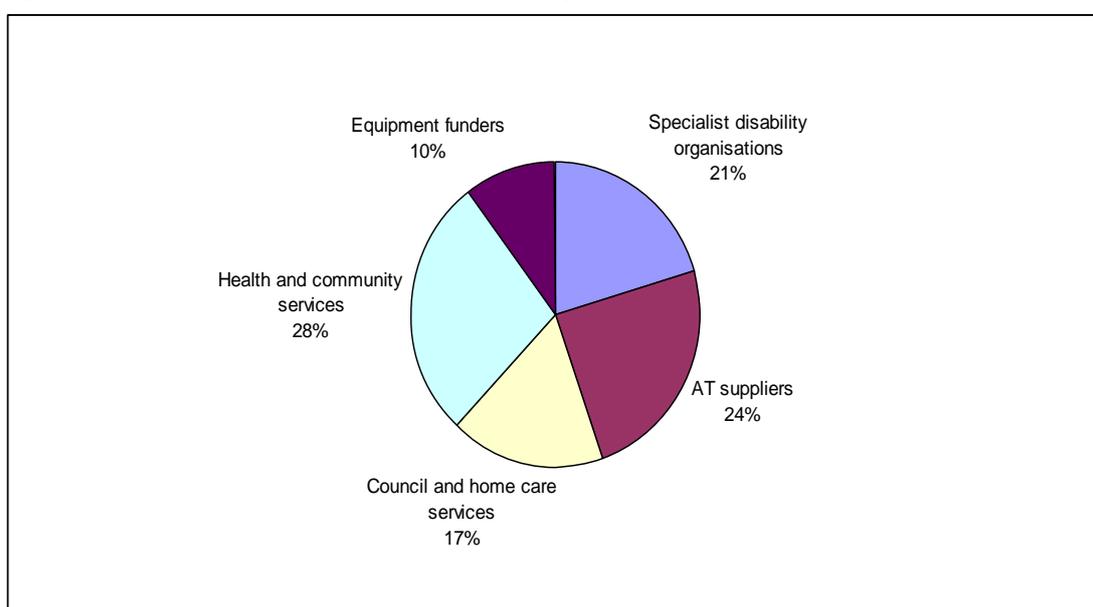
A database of equipment suppliers in WA was developed through word of mouth, and standard research practice (yellow pages, internet search, ILCWA database). This database was used to make initial contact with suppliers. A further list of other stakeholders with a role in the assessment, referral and provision pathway of AT, such as nurses, pharmacists, GPs and multicultural support workers, were also identified. Potential participants were approached directly by researchers (via phone, visit, email or letter) to introduce the research project to them. If they were interested in participating, further information (plain language statement and consent forms) was provided.

⁷⁸ Data from the pilot interview were included as the question set did not change.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

In total, 32 participants attended one of the three focus groups held in May 2013 at the Independent Living Centre WA. Representatives came from a range of organisations, and focus groups were structured such that a range of stakeholders was represented in each. These included rehabilitation engineers, community nurses, occupational therapists, equipment suppliers, respite and day centre program managers, home support and allied health managers, care advisors, CAEP coordinators, and a RAS team leader.⁷⁹ A subsequent set of interviews captured 10 additional stakeholders identified as important, who were not accessed via the focus groups as they were unable to attend, or had been identified through the groups for subsequent invitation to participate. These interviews included a GP, three pharmacists, a nurse consultant and a nurse from a Medicare Local, two physiotherapists and a multicultural worker. Figure 2 depicts the mix of stakeholders overall.

Figure 2 Stakeholder sample (combined focus group and interview)



Multicultural and Diversity Considerations

The research sample did not reflect the full cultural diversity of potential HACC clients in WA.⁸⁰ Steps were taken at the recruitment and sampling stage to include Indigenous and multicultural services where possible, but it would appear that Indigenous clients are represented in very low numbers within HACC services. This represents a limitation of this research.

The inclusion of representatives of a multicultural day centre program in the focus groups and an interview with the coordinator of the multicultural aged care services (ILCWA MACs) for the ILCWA provided valuable data, which illuminated to some degree the specific nuances of such subsets of clients, suggesting that additional ideas and pathways would be well worth exploring in relation to such groups. For example, data from these representatives

⁷⁹ RAS team leader counted as a RAS assessor rather than an AT stakeholder.

⁸⁰ People from culturally and linguistically diverse backgrounds and Aboriginal people are specifically identified as target special needs group for HACC. WA HACC manual. Department of Health; 2013. p. 7.

highlighted that activities of daily living are culturally contextual, and this affects the appropriateness of some AT (for example, toileting and eating customs, and utensils differ).

Data collection methods and questions

Two methods of data collection were used: focus groups and interviews. A question set for focus groups and interviews was developed for each of the three participants groups. Appendix 3 contains the Stakeholder Focus Group Schedule, Appendix 4 contains the Client Interview Schedule and Appendix 5 contains the RAS Assessor Interview Schedule. The questions focused on the following areas:

- What is meant by low cost or non-complex AT?
- What do stakeholders know about, or what role do they have in recommending, AT?
- What pathways exist for HACC clients?
- What barriers and facilitators exist in obtaining needed AT? (see Appendix 3 for the Stakeholder Focus Group Schedule.)
- How can access to AT be improved for HACC clients?

Additionally, prompt sheets with pictures of devices and techniques (see Appendix 6) were used to guide discussion with all participants across the following areas:

- Self-care activities: Walking, transferring and mobility; showering; toileting; continence; grooming; dressing and clothing; eating and drinking; medication management; meal preparation; communication; writing; reading; hearing; telephoning; emergency call systems
- Housework activities: Vacuuming; sweeping/mopping; cleaning the bath or shower; dusting; making beds; clothes washing; ironing; drying the washing
- Community access: Transferring into and out of cars/vehicles; shopping and unpacking
- Recreation: Covering a range of individual and group activities including maintaining the garden.

Data analysis

All data was transcribed into an Excel spreadsheet, and collated according to research questions. Themes within each research question area were identified from the data, and data re-categorised according to these. Counts of frequency were conducted for each response theme, for each participant category, and then totalled. A subset of participant case studies or vignettes was selected for more detailed presentation where they captured a diversity of experience across the question set and were illustrative of particular issues or contexts.

Comments on role of information and partnerships as enacted in the research process

From a methods perspective, some benefits were noted as part of the research process. RAS assessors responded to the in-depth discussion of the suite of non-complex AT and related strategies, which formed the foundation of the interviews. A sense of self-efficacy for

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

assessors was fostered through the process of identifying barriers to the effectiveness of their work, and a number noted that participation increased their knowledge of assistive technology and pathways available. It is hoped the research will result in the development of useful resources for RAS assessors.

The focus groups were an opportunity for AT stakeholders to meet other key players they had heard of but never met, or were previously unaware of. For example, a day centre coordinator (who had been working in the sector for over 25 years) was introduced to CAEP by the CAEP OT. There were lively discussions, particularly between AT suppliers and AT funders, and all participants were overwhelmingly positive about the opportunity to meet each other, compare information, and to have their views included in the design of improvements to the access and funding systems.

Similarly, HACC clients had the opportunity to discuss barriers to their access, and in a number of instances, problem solved these with the interviewer (utilising her occupational therapy skills⁸¹) and obtained further information regarding other supports – because each client interviewed had some degree of unmet need or issue, this was a tangible benefit to the HACC client sample.

⁸¹ While research interviews are intended for data collection, from an ethical perspective it was important for the occupational therapy researchers to respond to client need, and a protocol of information provision was adopted.

Section 3: Findings of empirical study

What is meant by non-complex AT?

In order to identify the scope of non-complex AT, data from the three participants groups was analysed to identify:

- what AT devices HACC clients are currently using
- what non-complex AT HACC clients need
- which AT devices RAS assessors identify for HACC clients
- the views of AT stakeholders regarding the scope of non-complex AT.

What assistive technology do HACC clients use?

Data was sought against the categories of AT and daily living areas discussed in the WA Wellness Training Module, ILCWA⁸² and the HACC Manual.⁸³ For the purposes of this research, the life areas requiring AT support are categorised in Table 5.

Table 5 Categories of AT, modification and supports to life areas

Personal care	Includes showering, grooming, dressing, clothing
Mobility	Includes walking, mobility, transferring
Communication	Includes writing, reading, hearing, telephoning, emergency call systems, managing money
Household	Includes vacuuming, sweeping, mopping; cleaning bath or shower; dusting; making beds; clothes washing and drying; ironing
Shopping & mobility	Includes transferring into/out of cars; shopping and unpacking
Recreation & leisure	Includes gardening
Toileting & continence	
Eating, drinking & meal preparation	
Medication management	

The following descriptions of HACC client AT use draw on client data comprehensively presented in the Individual HACC Client Pathways section p. 51. All clients utilised AT devices, ranging from 14 items (AT devices or fixtures including ramps and rails) down to five and averaging five devices per HACC client.⁸⁴ This is consistent with previous research into the combinations of AT-EI used by adult and older consumers living with disabilities, where an

⁸² CommunityWest. Wellness approach to community home care: equipment and resource guide. Perth: HACC and CommunityWest; 2007.

⁸³ WA HACC manual. Perth: Department of Health; 2013.

⁸⁴ NOTE handrails counted individually.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

average of eight AT devices were in use.⁸⁵ Frequently, these devices were highly valued and seen as necessary in order to stay at home:

Without the aids he would still be in hospital or we would never have got him out. We need every single one of these aids every day. No way I would be able to get him out of bed or on the toilet or in the shower without the aids. (Spouse of Haresh: C1)

Dwelling in a 'universally designed' environment such as a purpose built retirement complex appeared to decrease the requirement for structural adaptations such as handrails, half steps or ramps, but a range of other AT was still required (for example, Rowena: C3). Likewise, dwelling with a spouse or carer did not remove the requirement for AT: rather, it introduced an added dimension in that AT impacted on the carer's health and wellbeing also (for example, Hannah and John: C6). Each of the seven clients described multiple journeys, which were undertaken to meet a range of needs; even Hannah (C6) with her smaller set of requirements engaged with three service providers to obtain an AT-EI outcome.

From a client-centred perspective then, using multiple items means HACC clients must undergo multiple pathways. No 'one stop shop' was identified for the non-complex AT that HACC clients required. Contrary to current thinking in service provision, the HACC client is not at the 'centre' of any comprehensive AT-related service system, and this is exacerbated by the wide range of different pathways uncovered for each of the AT 'clusters', as will be presented below.

HACC clients had varied knowledge of pathways, for example Hannah (C6) did not know where her handrails had come from. Many clients engaged with multiple pathways to have their needs met, as Betty (C2) describes:

The physio from Joondalup Hospital gave me the wheeled walker. The community physio at Community Health at Habersley gave me the walking stick. The OT from Sir Charles Gardiner Hospital (SCGH) put the rails in the bathroom and toilet. The clothes' horse was recommended by a lady from Silver Chain [interviewer note: Betty's neighbour gave her one]. The lady from Silver Chain recommended and bought a long-handled dustpan; she bought it from Bunnings [interviewer note: Betty's family initiated and installed rails at the front door]. (Betty: C2)

Overall, the seven clients reported a range of non-complex AT either in use, abandoned and needed but not supplied. Most of these devices were clustered in the areas of personal care and mobility, with fewer devices being provided and identified in other areas. Clients did not report any AT related to Recreation and Leisure, or Gardening, though it should be noted that Mobility AT clearly played a role in these areas. While this is not to be considered a

⁸⁵ Layton N, Wilson E, Colgan S, Moodie M, Carter R. The equipping inclusion studies: assistive technology use and outcomes in Victoria. Melbourne: Deakin University; 2010.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

comprehensive nor representative list, it provides an indication of the common sorts of non-complex AT required by a small cohort of HACC clients.

Table 6 Non-complex AT used and required by HACC clients in study

Life areas	List of AT in use (actual devices)	No. of clients where AT in use (brackets show total number of devices)	No. of clients where AT known to be abandoned (brackets show total number of devices)	No. of clients where AT needed but not supplied (brackets show total number of devices)
Personal care: Includes showering, grooming, dressing, clothing	Commode/shower chair Non-slip mat Steel shower insert Pressure relief mattress Shower stool Long-handled shoe horn	4 clients (6 device types)	3 clients (4 discrete device types) Raised toilet seat Rails Toilet frame Non-slip mat	1 client (1 discrete device type) Aid to help pull up pants
Mobility: includes walking, mobility, transferring	Ramps Bedrail Rails Exercycle Walking frame, Wheelie walker, Long-handled reacher Walking stick Chairs with adjustable legs raised chair base	7 clients (10 device types)	6 clients (6 discrete device types) Standing frame Walking stick Walker Manual wheelchair Ramp Bedlever	5 clients (5 discrete device types) Rail – family installed Ramp Manual wheelchair Walker Freestanding rail
Toileting and continence	Continence pads Continence sheet Over toilet frame Urine bottle	3 clients (4 device types)		
Eating, drinking and meal preparation	Lid opener	1 client (1 device type)	1 client (1 device type) Kitchen trolley	
Medication management				

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Communication: includes writing, reading, hearing, telephoning, emergency call systems, managing money			2 clients (2 device types) Progressive lens (hardly uses) iPad	1 client (1 device type) New telephones
Housework: includes vacuuming, sweeping, mopping; cleaning bath or shower; dusting; making beds; clothes washing and drying; ironing	Clothes airer Long-handled dust pan set Washing trolley	2 clients (3 device types)		
Shopping and mobility: includes transferring into/out of cars; shopping and unpacking	Car hand controls	1 client (1 device type)		
Recreation and leisure				
Gardening				

Six of the seven clients explicitly linked particular AT devices and modifications to either functional issues or disability, either self-perceived or suggested by others. For example Rowena (C3) stated she uses walkers due to reduced mobility and the desire to remain independent and safe; one walker is for home use and the other for community use. The walker at home gets used for mobility and to sit on when she is preparing meals and doing her gardening. By contrast, Mary (C4) reportedly received walking aids because her spouse felt 'her walking was terrible' and received handrails because 'she was unsteady on her feet' [Albert, spouse of C4]. Similarly, in the case of Hannah (C6), the physiotherapist told her she needed the walker for safe mobility. Children frequently initiated purchases, and these were often enacted without the involvement of the client (this theme was echoed by a number of AT suppliers and pharmacists). For example, Betty (C2) had been given an iPad by her son, but it had never been used.

What assistive technologies are RAS assessors and AT stakeholders familiar with?

As can be seen from the small sample of client AT usage, a range of devices and modifications is used by HACC clients and these broadly mapped to the areas of AT identified in the Equipment and Resource Guide and taught within the WA Wellness Training Module, as previously identified and listed in Table 5.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

AT Stakeholders and RAS assessors demonstrated familiarity with most of the AT device types, modifications and strategies presented in Table 5. The categories and prompt sheets used in interview are depicted in Appendix 6. Invariably, some participants were less aware of some device categories than others. While no additional or different major categories were identified, for many categories people had examples of newer or alternative products to those used on the interview prompt sheets, illustrating the wide range on the market, and the difficulties of 'keeping up to date'. Each focus group featured some degree of information sharing and business card exchange, and a number of the interview participants commented on receiving new information during their interviews. One participant stated:

It's a mire out there. It is ridiculous keeping abreast of government changes ... huge market out there needs assistance ... it's debilitating not assistive ... we have all learned things today [because we were here] but as for the client – good luck! (AT stakeholder)

At times, stakeholders were aware of devices but not familiar with them in any level of detail, for example a GP described what constitutes AT as follows:

Walkers and possibly wheelchairs, depends on how much they cost, aids around the home for showering, planks to get people up stairs, things to get into cars and things to transfer from beds and chairs, things around bowel and bladder, maybe things around respiratory although they are probably funded. You are probably talking more about things OTs tend to do. I imagine things to do with visual and hearing equipment. Commonly used? I imagine the assistive walking stuff. (GP)

What pathways are RAS assessors currently using to refer HACC clients to non-complex AT?

Overall, RAS assessors identified 109 separate pathways to obtain AT for HACC clients. Yet when asked directly for pathways to non-complex AT, RAS assessors named just 24 pathways (Figure 3). RAS assessors were able to generate an additional 85 pathways related to specific types of AT when talking through the AT prompt sheets (Figure 4). The areas of mobility and recreation offered the highest number of pathways to relevant AT (69 each), and communication also provided a high number of pathways to navigate (63), though all areas offered a large number of pathways to AT provision (in excess of 30 pathways in each area).

Figure 3 Pathways to non-complex AT suggested by RAS assessors

(n refers to the number of RAS assessors who identified this pathway)

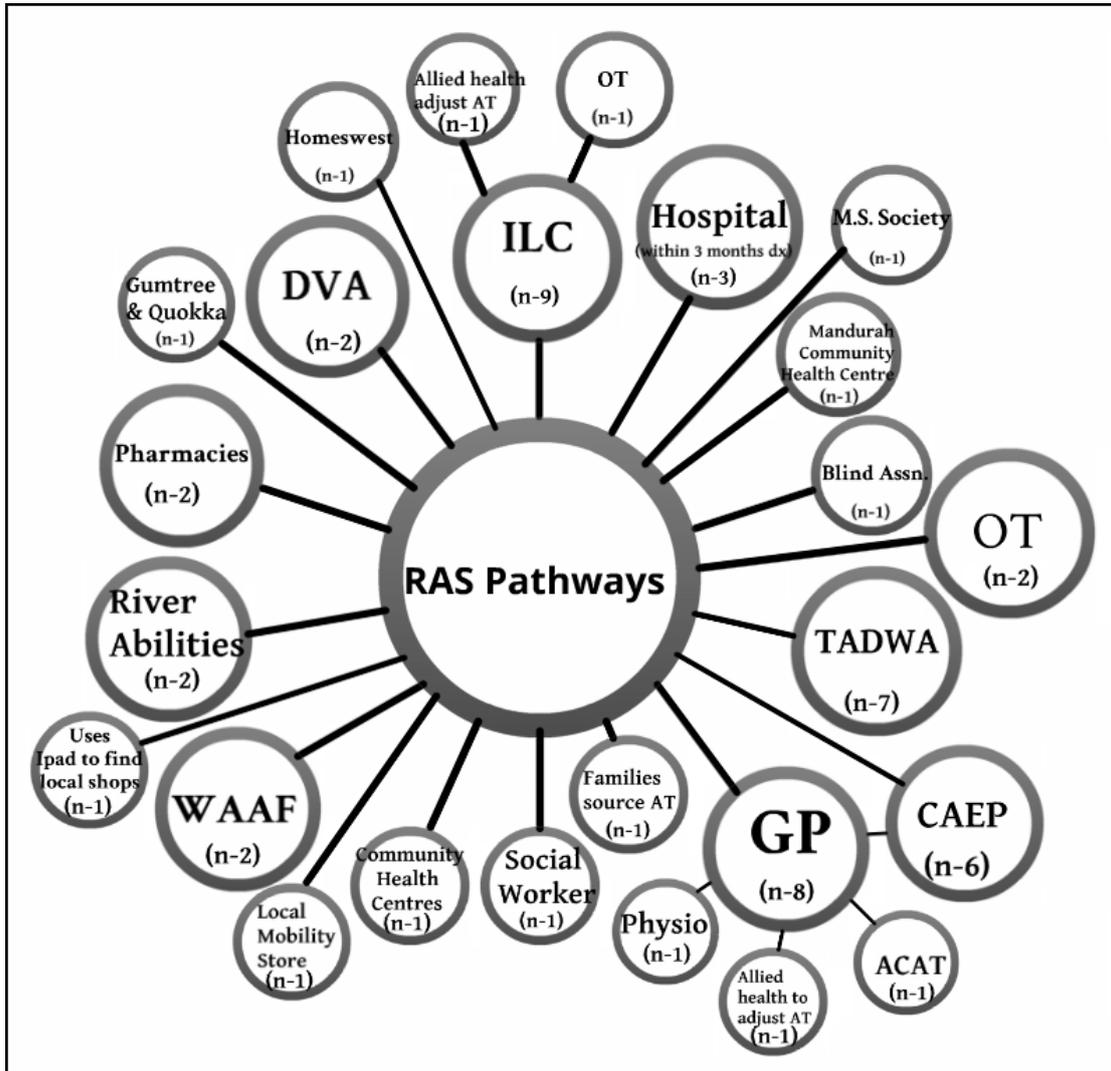
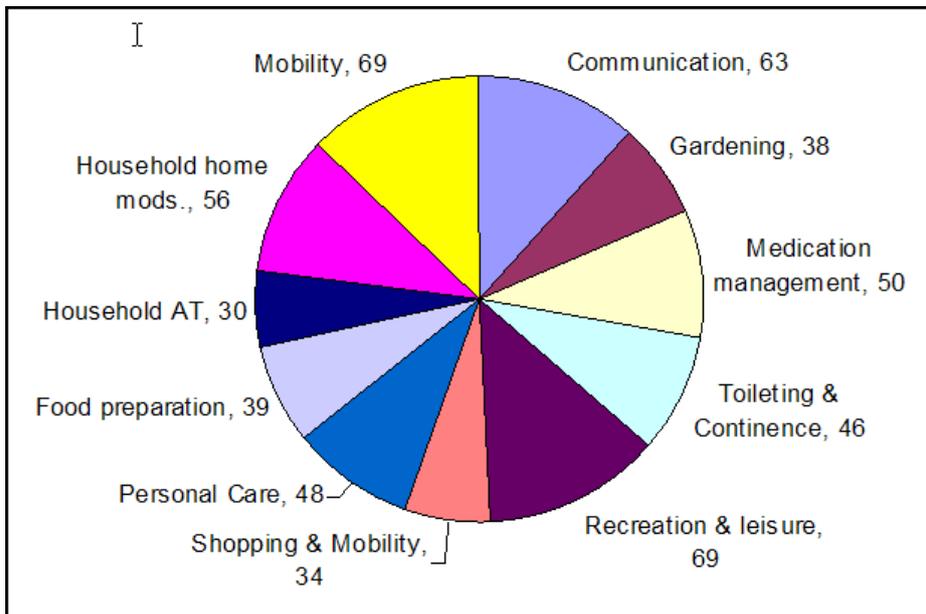


Figure 4 Total pathways to non-complex AT identified by RAS assessors



PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Of these, the most frequently mentioned was that of the ILCWA, being identified on 82 occasions as a pathway to AT across all areas of daily life. No other pathway was identified as being a valued pathway across every life area, though the pathway of GP was also highly identified (48 times) across all but one daily living area, with Technology Assisting Disability Western Australia (TADWA) also mentioned frequently in many life areas but excluding communication, gardening and medication management. In general, pathways were understood to include both AT specialists (such as the ILCWA and TADWA, along with other disability-specific agencies), and non-AT specialists such as pharmacists and Bunnings, as well as RAS assessors, and health professionals including GPs, nurses, and allied health practitioners, among others (see Table 7).

Table 7 Most frequently mentioned pathways to AT, by RAS assessors

PATHWAYS	Communication	Gardening	Medication management	Toileting and continence	Recreation and leisure	Shopping and mobility	Personal care	Food preparation etc	Household (AT and Mods)	Mobility	TOTALS
ILCWA	9	8	2	3	4	10	11	14	10	11	82
GP	10		8	6	1		4	2	4	13	48
TADWA				2	7	2	7	1	13	9	41
Pharmacy			16			1	3	3		4	27
CAEP			1	3	1		3	2	2	5	17
Bunnings		11					1	1	4		17
OT*				1			2	3	4	6	16
Hospital				3			5	2	5		15
RAS talks techniques		2				3			10		15
Assn. for the Blind	10		3		1						14
Silver Chain	9		1	2					1	1	14
CMAS				12							12
HIP or PEP	1				1	1	1		4	1	9
Local shops	2					1	2	1	2	1	9
River Abilities						1	2	2	1	2	8
Social worker					3		1		1	3	8
Physio*				1		1			1	4	7
TOTAL	41	21	31	32	18	19	42	31	61	56	

*community or hospital

Appendix 7 contains the full list of RAS identified pathways to non-complex AT

Overall, RAS assessors felt it was impossible to be fully knowledgeable about the multiple and frequently changing pathways to AT. The fact that RAS assessors were able to brainstorm an additional 85 pathways illustrates the iterative and problem-solving-based nature of AT and pathway knowledge; 'known' and familiar paths did not always cover the range of AT of use, thus further thinking is likely to be required to fully support clients to find a path.

What pathways exist to specific types of AT?

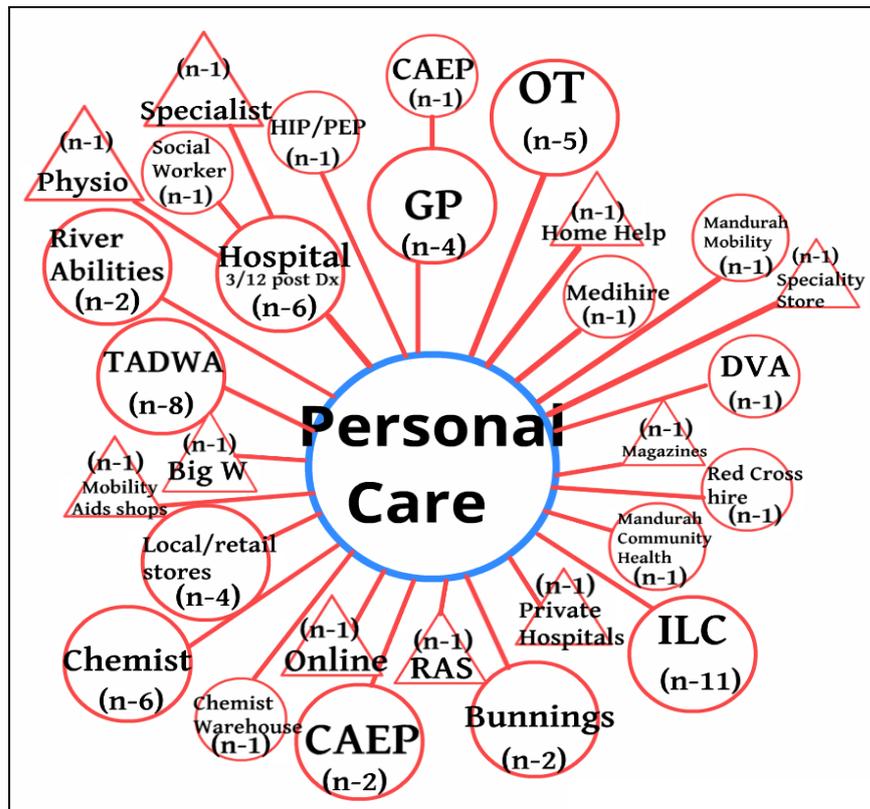
Additionally, data were collected on pathways to specific AT categories, supporting clusters of daily living tasks. These data were drawn from AT stakeholders (that is, focus group discussions), RAS assessors, and HACC clients. The results are presented follows, with the total (n) number of mentions by all AT stakeholders.

Specific AT pathways

Personal care

Personal care was seen as a core ‘wellness training’ area. The ILCWA, TADWA and OT (based in community or hospitals) were the most frequently reported pathways to personal care devices by RAS assessors, although retail options were also identified, such as ‘Bunnings or Big W’. Other AT stakeholders named a range of retail stores, magazines, and online options (see Figure 5). One nurse suggested RAS assessment was a pathway to personal care: she had only heard of RAS during the focus group. Despite the ready availability of devices from a range of shops, it was felt that the appropriateness of devices could not be assumed, because: ‘Some of these pieces of equipment, they might be perfect for some people, but not others, so they might buy them and not have the dexterity [to use them]’. (RAS Assessor)

Figure 5 Pathways for Personal Care devices⁸⁶

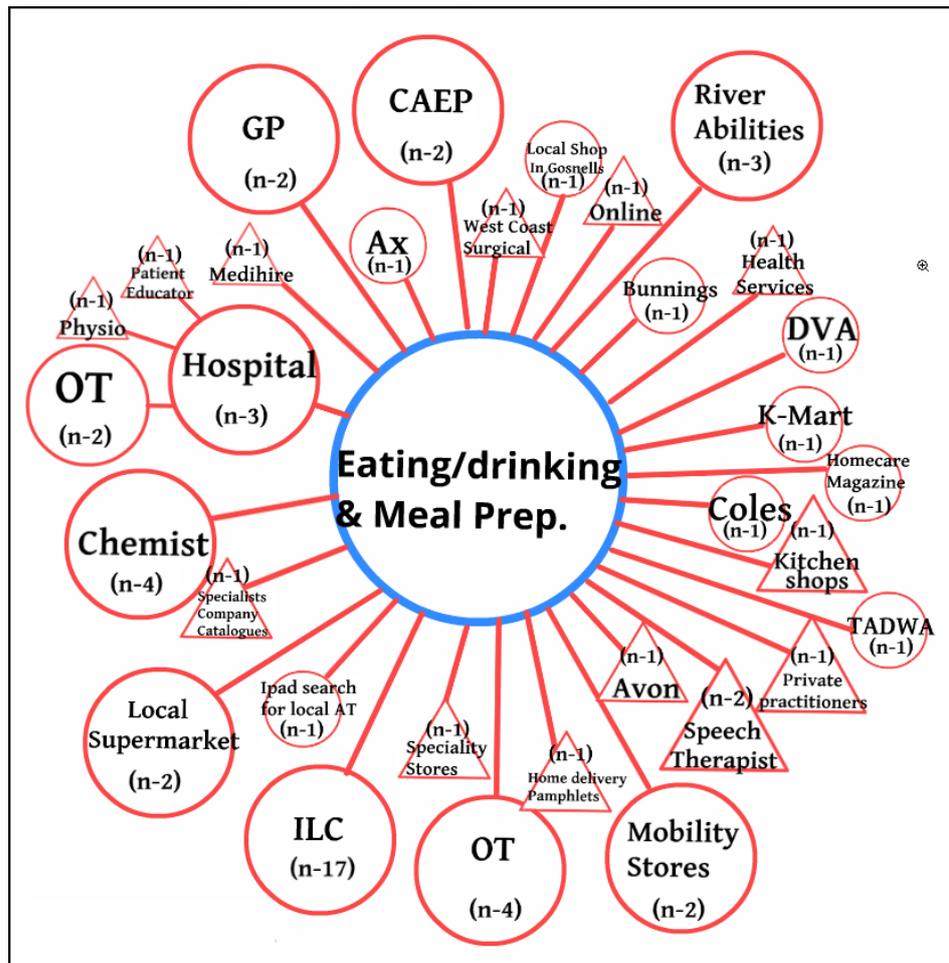


⁸⁶ KEY: Triangle = pathway identified by AT stakeholders only; Large circles / triangles = multiple 2 RAS assessors / AT stakeholders identify pathway.

Eating, drinking and meal preparation

Again the ILCWA was the major pathway for devices related to eating, drinking and meal preparation (14 mentions), with a range of other providers, such as community and hospital OT's, mentioned several times (three each). This area was seen as a 'gap in people knowing what's available ... may have adapted kettle or 'tilty thing' but who knows about what's out there' (AT stakeholder). Two physiotherapists identified speech pathology as a pathway to these devices, and one enquired 'does OT sell them?'. Stakeholders saw this as a self-purchase area via home delivery pamphlets or some pharmacies, although it was an expected area of provision for hospital OTs for clients exiting hospital.

Figure 6 Pathways for eating, drinking and meal preparation devices⁸⁷



Communication

Communication devices such as book holders, phone, magnifiers and alarms were felt to 'add lots of quality but [the speaker was] not convinced every HACC client knows about them' (AT stakeholder). Some stakeholders had differing suggestions as to pathways for such devices as telephones:

⁸⁷ KEY: Triangle = pathway identified by AT stakeholders only;
Large circles / triangles = multiple 2 RAS assessors / AT stakeholders identify pathway.

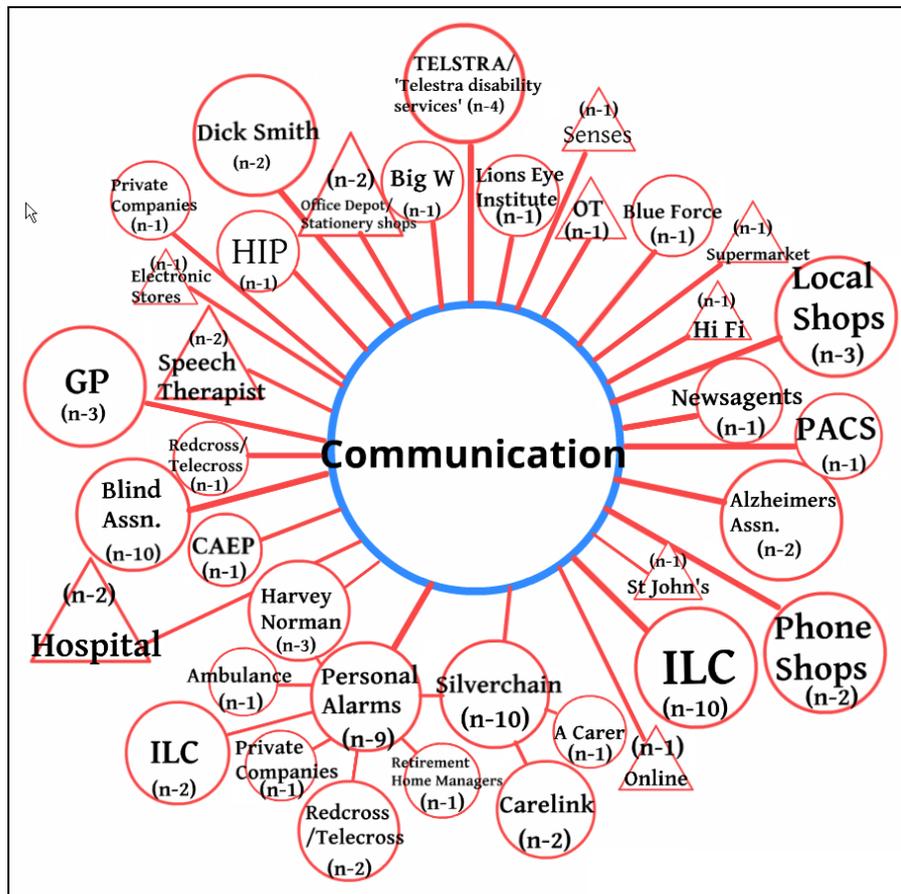
PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

TELSTRA is good with the telephone, if you ring them, they will swap to a big button phone. (Day centre coordinator)

If it's just a phone, TELSTRA disability services. If it's something more specialised, the ILCWA, CAEP might do iPads, don't actually cover phones yet. If something is requested a lot it might go onto the imprest list. (OT)

Overall, GPs and the Association for the Blind were the most frequently mentioned pathways for this type of equipment by RAS assessors (with 10 mentions each), followed by the ILCWA and Silver Chain (with nine mentions each).

Figure 7 Pathways to communication and visual aids⁸⁸



Household AT

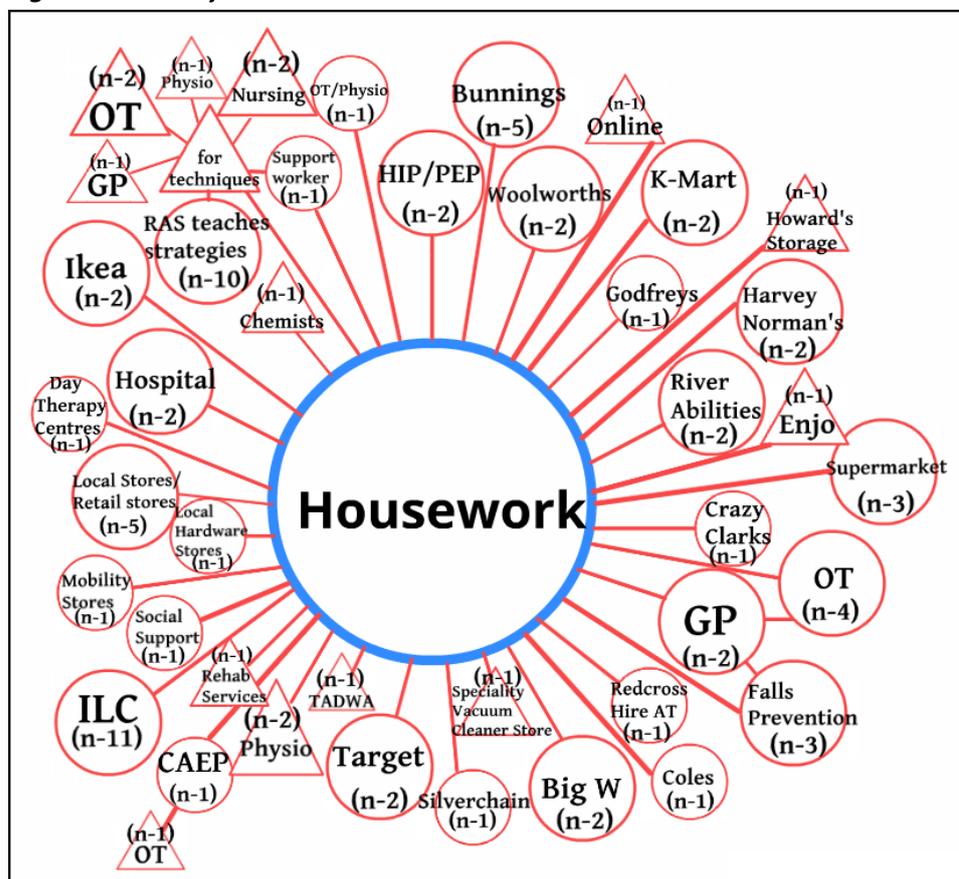
In terms of domestic, household equipment and modifications, pathways appeared to diversify even further. The most frequently mentioned pathway was TADWA, followed by the ILCWA and discussion of techniques with RAS assessors to conserve energy and simplify tasks around the home. Discussions of engagement in household tasks raised the theme of life quality: several stakeholders observed that 'People's lives get smaller' as their capacity to engage in these pursuits lessens. That is, the quality of life of HACC clients decreased when

⁸⁸ KEY: Triangle = pathway identified by AT stakeholders only;
Large circles / triangles = multiple 2 RAS assessors / AT stakeholders identify pathway.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

they relinquished long held tasks and roles around the house, garden or community to do with home care. It was also noted that 'letting go' of such tasks could be gradual and unnoticed – in other words, represent an unmet need for supports that will keep these tasks manageable.

Figure 8 Pathways to household AT⁸⁹



Gardening

Gardening, particularly, was seen as an important pursuit – 'Better [if the client is] out there in the garden, than stuck inside' (AT supplier) – well beyond recreation or home maintenance functions:

That generation love their gardening; it's quite a meaningful pursuit ... options include converting the beautiful quarter acre to a smaller courtyard with hanging baskets. ... Lawn mowing and heavier type activities get farmed out to HACC type volunteers. ... HACC will deny gardening services if it is for quality of life, they only do it for safety, for example pruning overhead branches etc. (AT supplier)

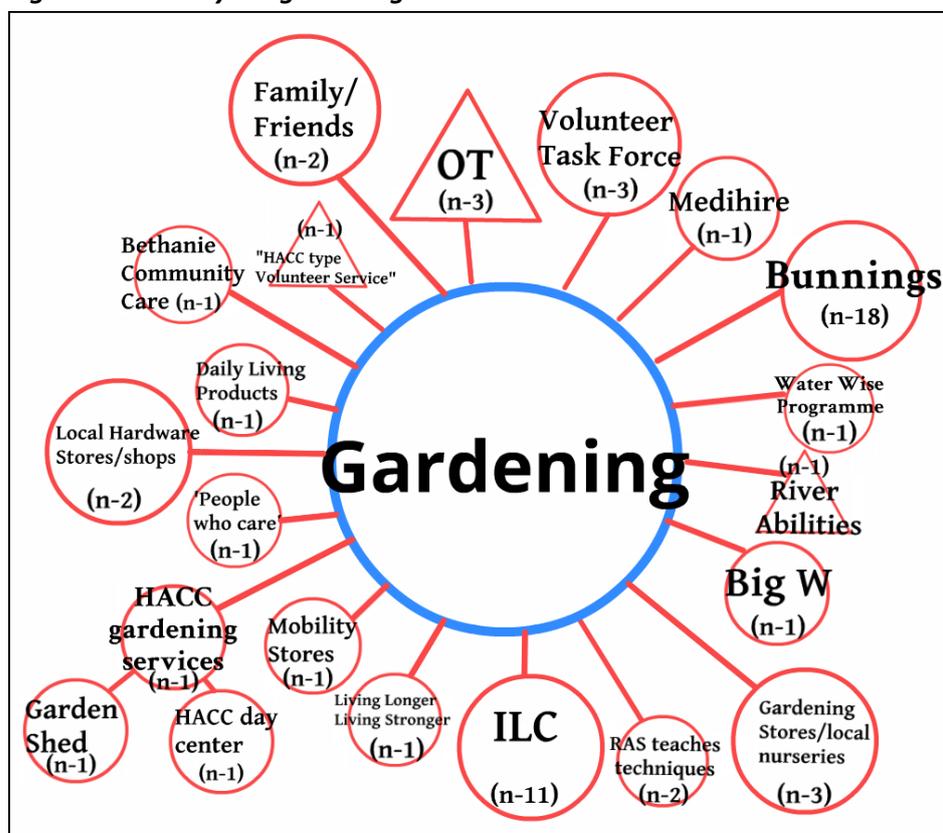
Such AT generally needs to be self-funded, leading one supplier to comment that clients were therefore free to shop at 'The Medi-hires, the Bunnings, they are very good for the kneelers'

⁸⁹ KEY: Triangle = pathway identified by AT stakeholders only;

Large circles / triangles = multiple 2 RAS assessors / AT stakeholders identify pathway.

(AT stakeholder); 'TADWA do raised garden beds... lots of people want (garden) kneelers' (AT stakeholder).

Figure 9 Pathways to gardening AT⁹⁰



In the context of gardening, the issue of disability equipment versus generic equipment arose. One nurse commented that gardening aids:

... are readily available in the shops, a lot do access it as they don't want to lose their ability to get out into the garden, they look for ways to help themselves in that situation and don't necessarily look at it as aged-related/disability so it is good that most of those things are available in the a garden place; generic availability is good as it is easily accessed'. (Nurse)

While commercial options were seen as positive, particularly if retailers sell devices such as lightweight and long-handled tools with contour grip handles, the lack of soft technology was noted. A 'trade-off' between the benefits of mainstream, locally available garden supplies and drawbacks of lack of tailored AT recommendation was identified:

'Someone needs to think of exercise tolerance, insight. You might look at it and say don't do it, it's dangerous, but they'll make up their own minds, and that's the wellness model. It might not be ideal, but ...'. (OT)

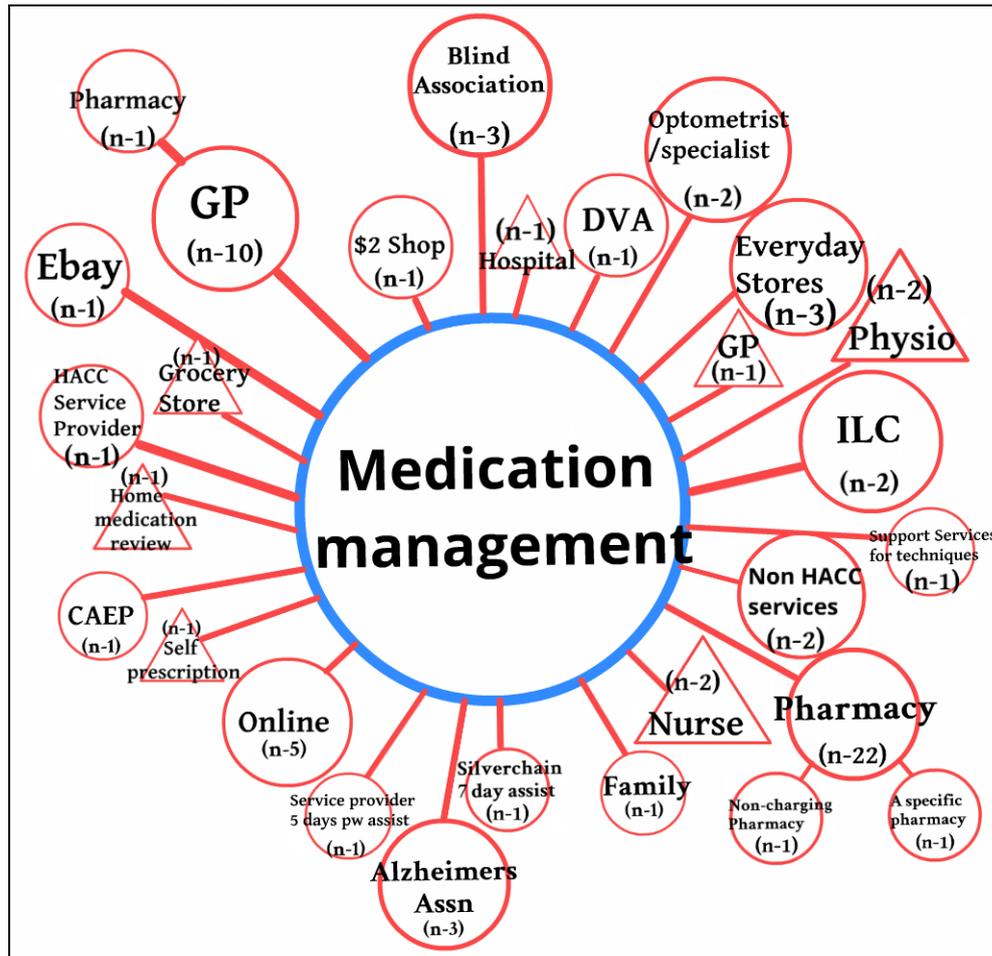
⁹⁰ KEY: Triangle = pathway identified by AT stakeholders only;

Large circles / triangles = multiple 2 RAS assessors / AT stakeholders identify pathway.

Medication management

Medication management was widely believed to be well managed by pharmacies (with 16 RAS assessors mentioning pharmacies as a pathway), although the cost of filling dossette boxes was noted as a barrier by one-third of participants. In addition, RAS assessors identified GPs as the other major pathway in this area, with some mention of the Association for the Blind (three mentions) and the ILCWA (two mentions).

Figure 12 Pathways to medication management⁹³

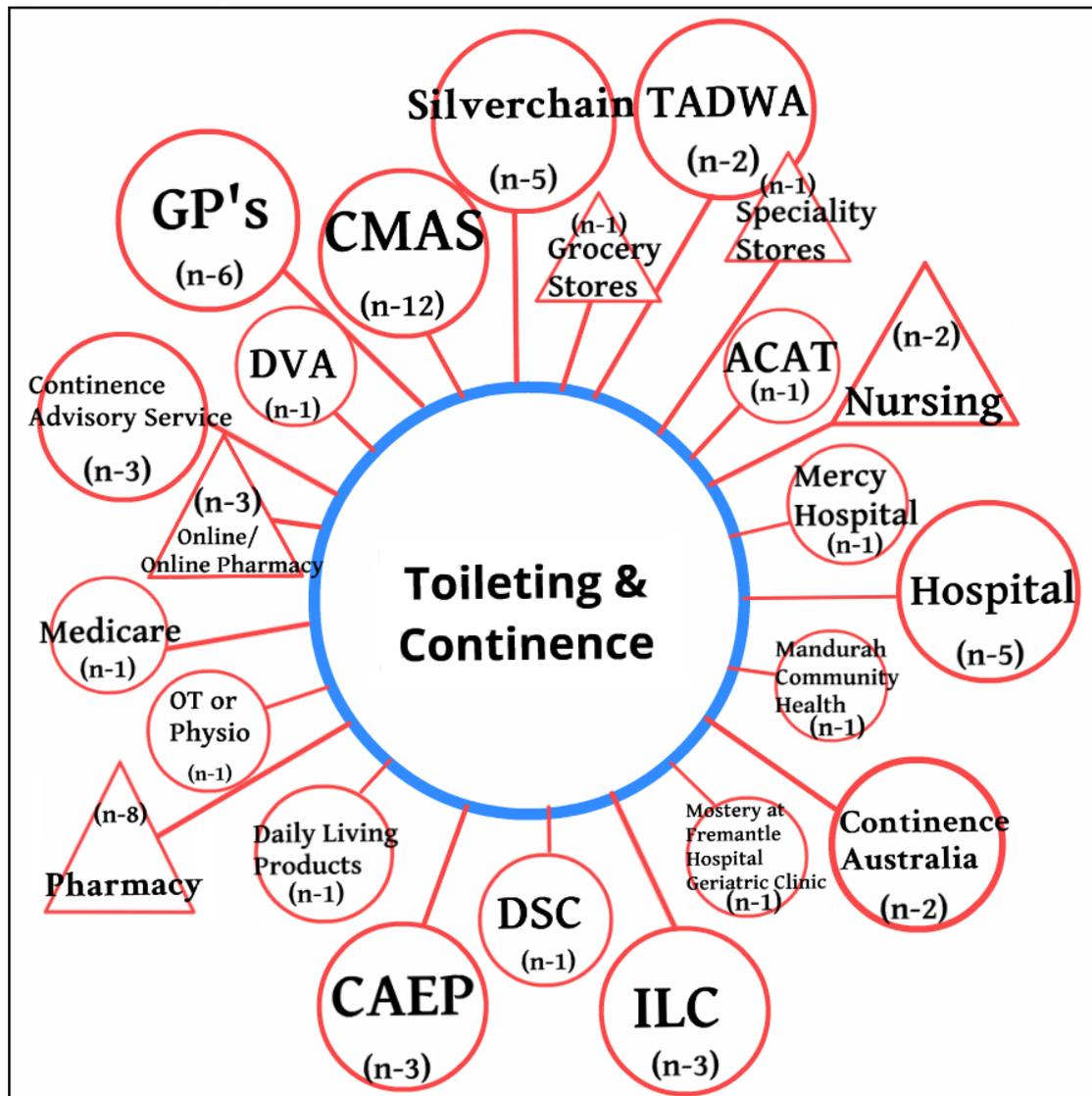


⁹³ KEY: Triangle = pathway identified by AT stakeholders only; Large circles / triangles = multiple 2 RAS assessors / AT stakeholders identify pathway.

Toileting and continence

Continence was largely identified with the Continence Management Advice Service, depending on whether clients could cope with the administrative aspects of the CMAS scheme, and their preferences for 'discretion' in terms of purchase and delivery. Additionally, GPs were frequently mentioned, followed by ILCWA, CAEP and hospitals.

Figure 13 Pathways to continence AT⁹⁴

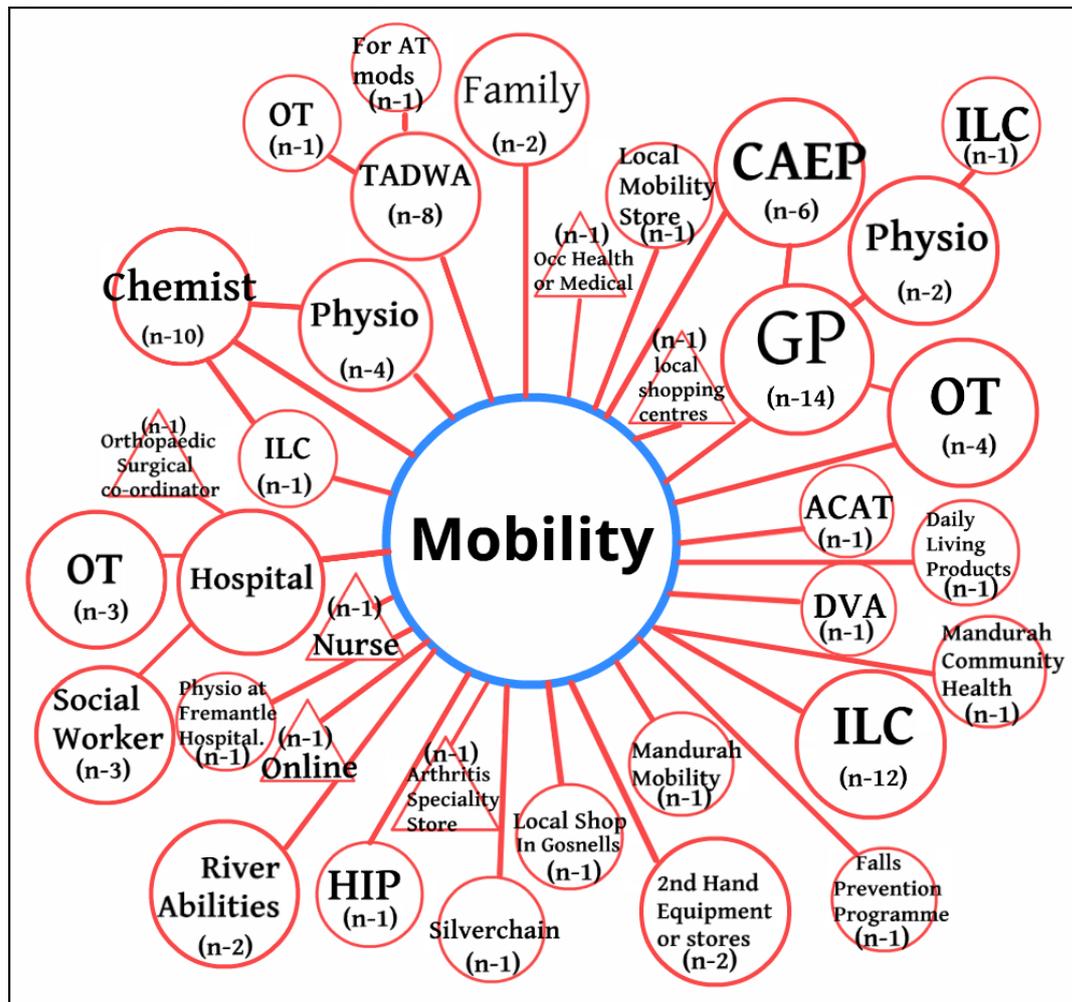


⁹⁴ KEY: Triangle = pathway identified by AT stakeholders only;
Large circles / triangles = multiple 2 RAS assessors / AT stakeholders identify pathway.

Mobility

Both GPs and the ILCWA were seen to be the major pathways in relation to mobility, followed by TADWA, hospital and community OT's and CAEP. Mobility was mentioned in relation to occupational therapy far more than physiotherapy by the stakeholder cohort, possibly due to the overall predominance of OT as equipment prescribers in the community aged-care sector.

Figure 14 Pathways to mobility AT⁹⁵



Before we turn to consider the role of pathway providers, summary information on the seven HACC clients is presented. The case studies below depict the range of AT-EI and provision pathways reported by the HACC clients interviewed, and provide an illustration of how the above pathways are experienced. Each case study also summarises key interview themes concerning funding, issues and barriers, unmet needs, and ideas for improvement.

⁹⁵ KEY: Triangle = pathway identified by AT stakeholders only;

Large circles / triangles = multiple 2 RAS assessors / AT stakeholders identify pathway.

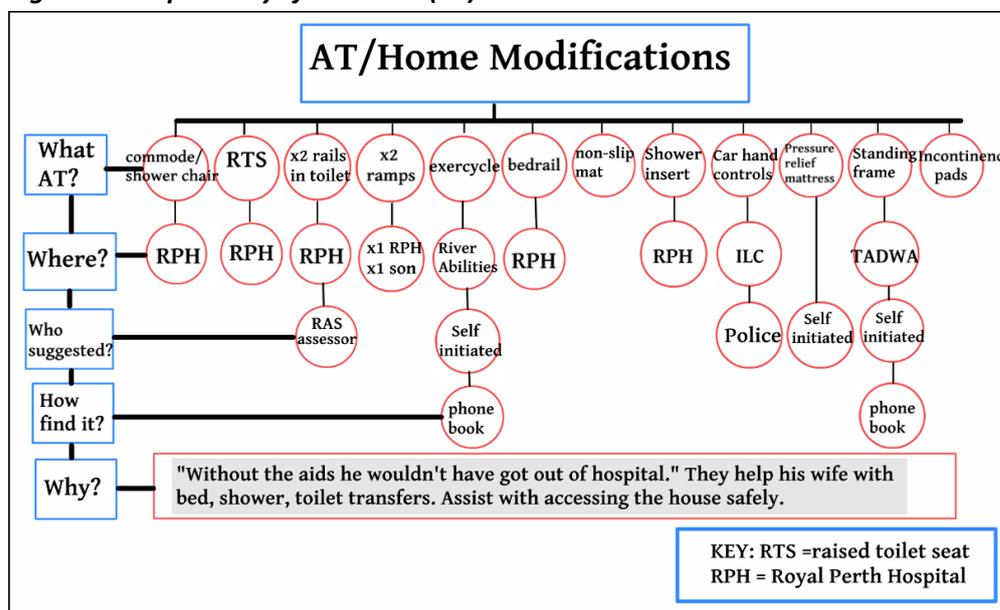
Individual HACC client pathways

Haresh (C1)

Haresh is a 77-year-old gentleman with incomplete paraplegia, living with wife Jan and receiving HACC domestic and gardening assistance. His mix of non-complex AT, home modifications and specialist AT devices is drawn from health and community sources.

- Funding experiences: 'Grant for hand controls'; 'Government supplied' catheters; CMAS for continence pads; other AT on loan from hospital; purchased exercycle, standing frame and wheelchair.
- Current issues: Finding someone for repairs is difficult: rang the hospital for wheelchair repairs, they had never heard of CAEP. Interviewer noted the rails, raised toilet seat and shower commode are all for same purpose (toilet access) but not all required.
- Wait time experiences: It took two weeks from assessment till rail installation; yet three years to get a footplate fixed on wheelchair.
- Unmet needs: Haresh reported he couldn't pull his pants up until a visit to the ILCWA, during which they showed him. He also noted that, although Silver Chain visited to administer pressure sore dressings for some months, they didn't mention AT.
- Perceived barriers: Haresh reported being overwhelmed leaving hospital: too many instructions, – 'they didn't even suggest the ILCWA'; lack of information – 'don't know what services are available. Its confusing, such a big unknown'.

Figure 15 AT pathways for Haresh (C1)



Betty (C2)

Betty is a 63-year-old woman, living alone, with a past history of surgery to remove a tumour and attend to a fractured pelvis. Betty has poor vision and balance and currently receives home care and shopping assistance.

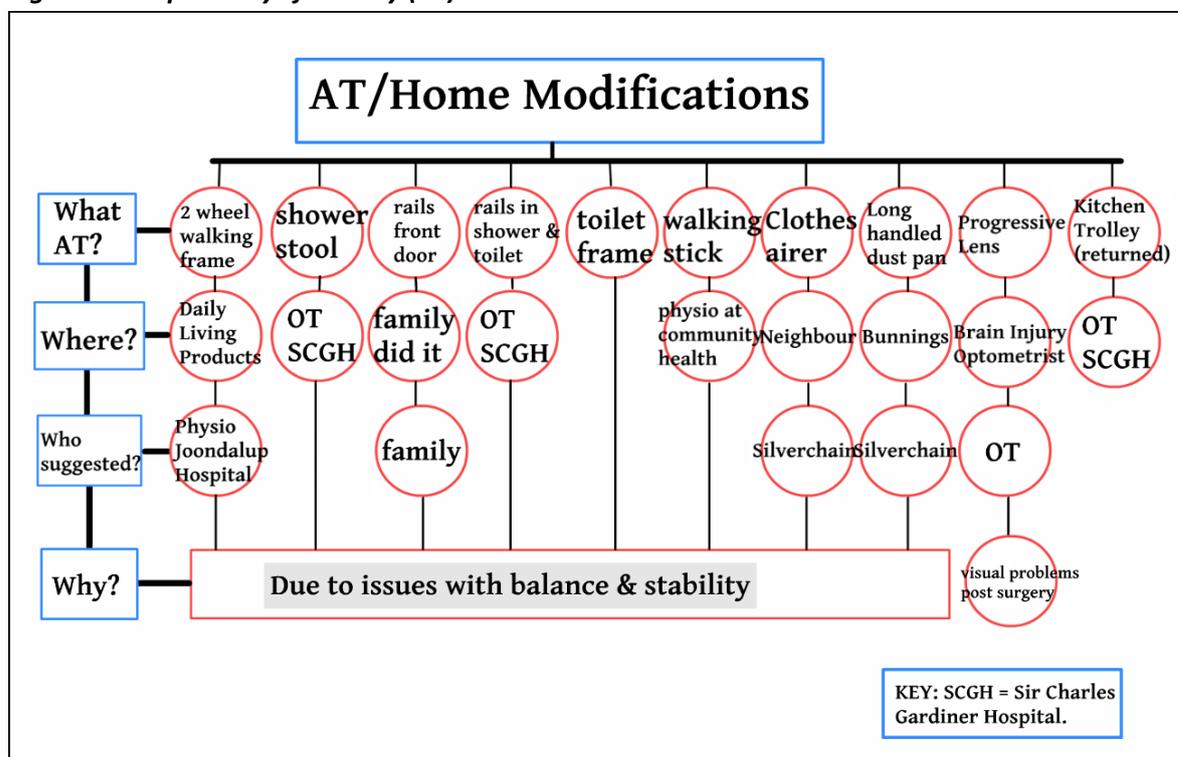
- Funding experiences: Betty purchased a dustpan set and progressive lenses, made a co-payment of \$10 towards handrails, and has a walking stick and wheeled walker on

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

permanent loan. She is borrowing a shower stool but states she would have bought one if she had known she would need it for so long.

- Current issues: Although a RAS assessor visited Betty's house (her assessor was also an OT), no one suggested rails at the front door; rails were recommended by the OT in the toilet and shower. Her family later decided rails were essential at the front door steps.
- Wait time experiences: Just a two-day wait for rails.
- Unmet needs: Betty's son sourced additional laundry and domestic assistance.
- Perceived barriers: Betty stated that, 'It is very hard to ask for help when you have been so independent' ... 'so tiring; no one discussed energy conservation with me'.
- Ideas for improvement: The RAS assessor provided advice regarding strategies instead of a rail at the back door, which Betty appreciated.

Figure 16 AT pathways for Betty (C2)



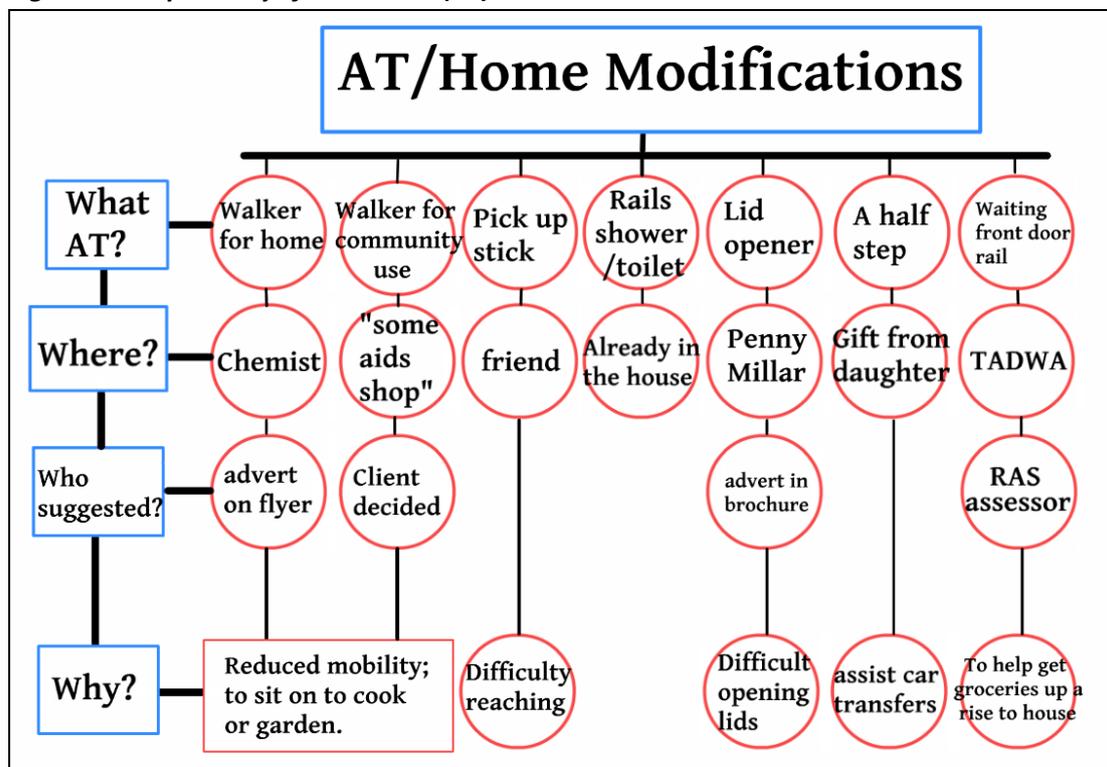
Rowena (C3)

Rowena is an 84-year-old woman living alone in a retirement village with a history of arthritis and reduced mobility but determined to be as active and independent for as long as possible. She receives domestic assistance but declined gardening support. The 'universally designed' nature of her home (wheelchair accessible with good security) means Rowena requires fewer supports than other clients who live with steps and slopes. She prides herself on being very active despite her age, and very sociable; she lives alone and belongs to a few social groups.

- Funding experiences: Rowena was unclear on costs and who funded her rails; she has self-purchased a walking frame and a lid opener, and has a half step and reaching aid on permanent loan. She sees it largely her responsibility to access services and AT as needed.

- Wait time experiences: Rowena is still awaiting handrails for the front door, having been told 'it could be three or six months'.

Figure 17 AT pathways for Rowena (C3)

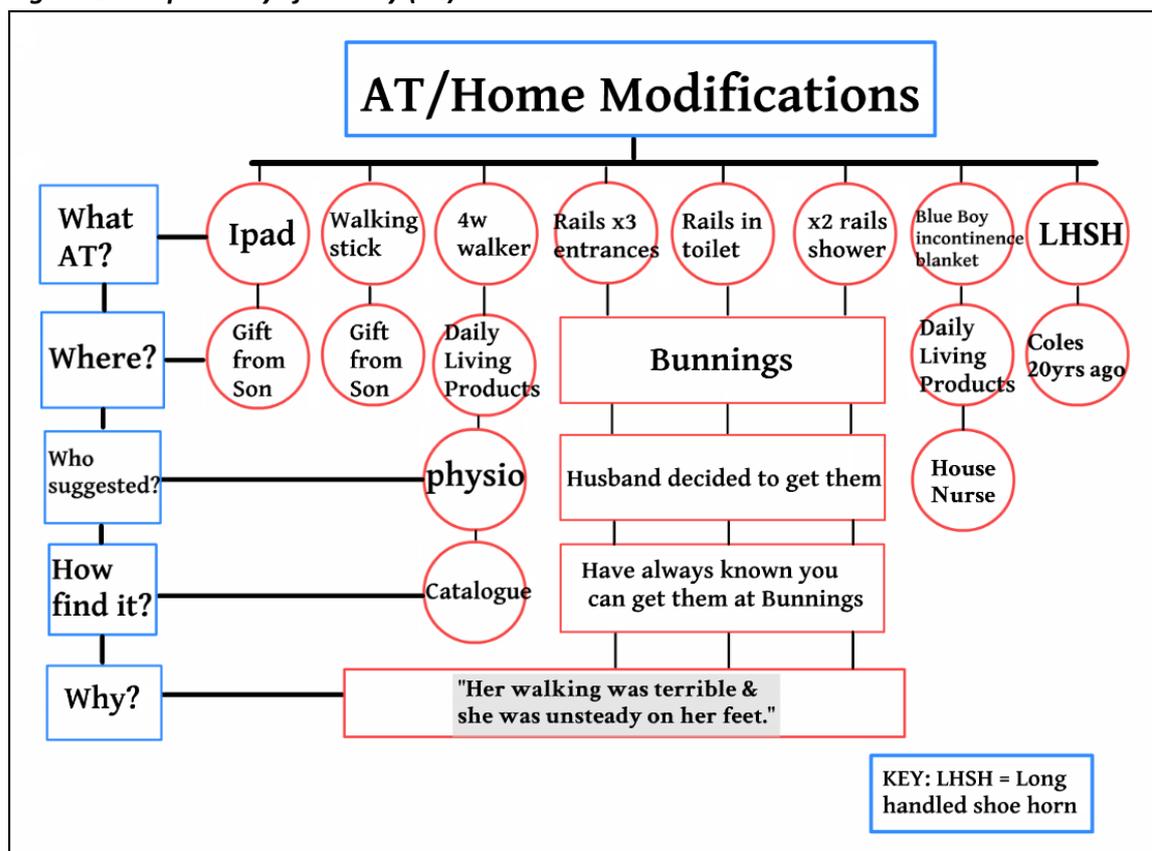


Mary and Albert (C4)

Mary is an 81-year-old woman who lives with her husband, Albert, and receives HACC domestic assistance. and have requested assistance to attend a social group once a week. Mary has sclerosis and Albert describes her as having 'a little bit of dementia'.

- Funding experiences: Ninety per cent of Mary's AT costs were reimbursed by the City of Melville.
- Current issues: The interviewer perceived clear issues concerning safety, for example forgetting she is cooking and constantly burning food. Mary is also anxious about failing memory and is in some denial regarding this.
- Wait time experiences: Mary is awaiting placement in a socialisation group; however, the interviewer felt her needs went beyond this 'respite' option.
- Unmet needs: Mary and Albert reported none, but unmet needs included a shower stool, perching stool in the kitchen, AT for memory loss and safety (particularly in the kitchen), and information on aged care services.
- Abandoned AT: Mary was not using her walking stick – 'because I have to get better and it makes me look like an old duck'; nor her iPad – 'we are too far behind in technology to use it'; and she no longer had her nonslip mat – 'gave it away because it was too hard to clean'.

Figure 18 AT pathways for Mary (C4)



Don (C5)

Seventy-seven-year-old Don lives with an amputation and with Parkinson’s Disease. He lives with his wife, also in her 70s, in their own single-storey home with a step at the entrance. After a recent RAS assessment, Don receives HACC domestic and shopping assistance once a fortnight. Don described himself as a sociable and active man who likes to visit family and friends, enjoys getting outside and spending time in his garden and values his independence. Don’s mobility has recently deteriorated and a systemic failure to address his AT-EI needs means that he is not been able to do previously meaningful activities.

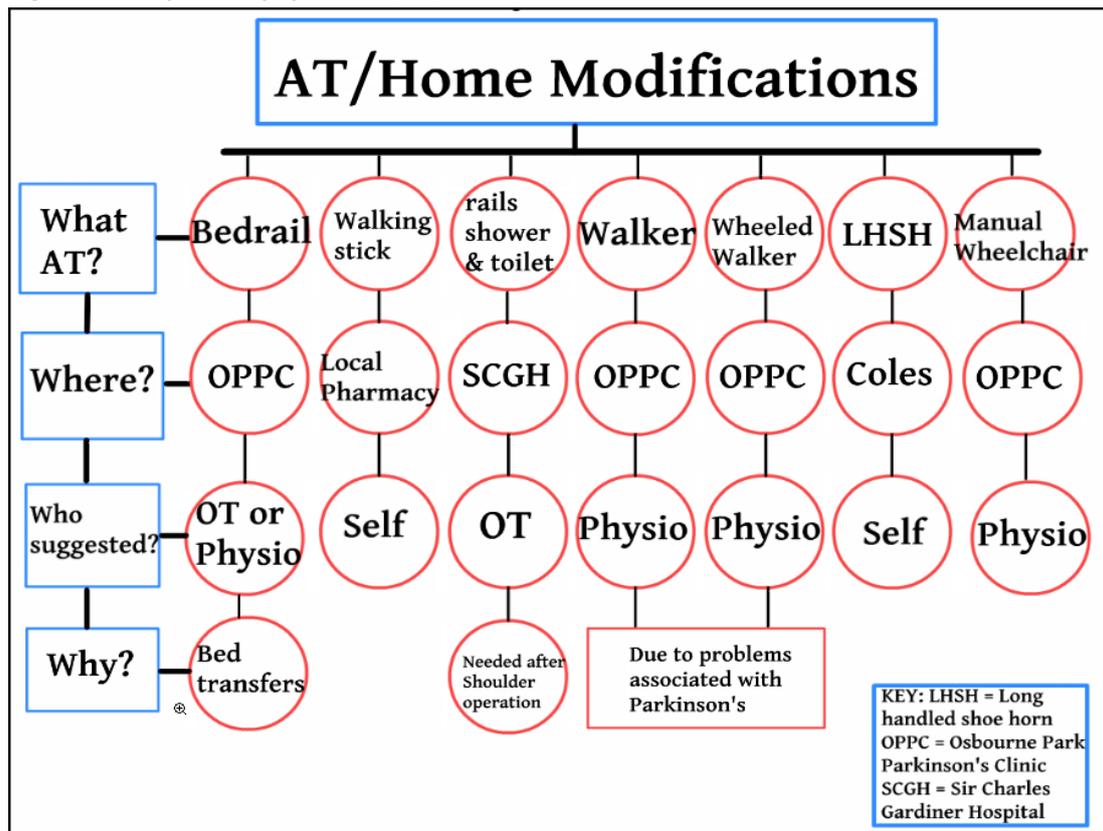
- Funding experiences: Don received funding for a walking stick, power wheelchair and long-handled shoehorn. He purchased a walking stick; contributed co-payments on a manual wheelchair, walking frame and additional walker (now returned); and had a bedrail on permanent loan.
- Current issues: Without a ramp, over the last five months Don has only been able to leave the house twice, with assistance from family; he has not been able to do previously meaningful activities – ‘I can’t get out to the shops, GPs; I am stranded, I can use my walker but can’t go too far with that’. He says it is just too much effort to even manage getting in a taxi. He reports he is starting to experience depression as a result. Don now describes himself as 'stuck' with a power wheelchair he can't use properly, with secondary health conditions (depression) and reduced participation.
- Unmet needs: A physiotherapist at the Parkinson's clinic apparently provided a bedrail, a walker and a manual wheelchair to aid functional mobility, yet Don returned it, as it was ‘too hard to push’. Having received no further information on AT

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

or funding, Don self-purchased an electric wheelchair for \$3000 through an advertisement in the local pensioners magazine. However, Don reports the hand controls were on the wrong side, and that he has trouble manoeuvring it. In terms of transfers, he reports 'I shuffle and it takes me five minutes to get out of the wheelchair'. The physiotherapist provided a small ramp so he could access his home; however, this didn't fit the dimensions of the front door. In attempting to resolve this issue, the physiotherapist was informed but reportedly told Don they don't do custom-made ramps and left it at that, without any suggestions. Don endeavoured to source a ramp for himself, which proved very difficult. Don saw a ramp for \$50 at 'Shop Rider', a supplier of AT, but it was too steep. A further strategy involved asking a friend to make one, but the friend has been in hospital.

- Perceived barriers: Don reports that current services are not addressing his ongoing needs: Don sees the consultant at the Parkinson's clinic every four months. Don does not regularly attend physiotherapy, having been told there was 'only so much they can do' for him. Recent amputee reviews note that his stump has shrunk but that there is 'nothing they can do about it'.

Figure 19 AT pathways for Don (C5)



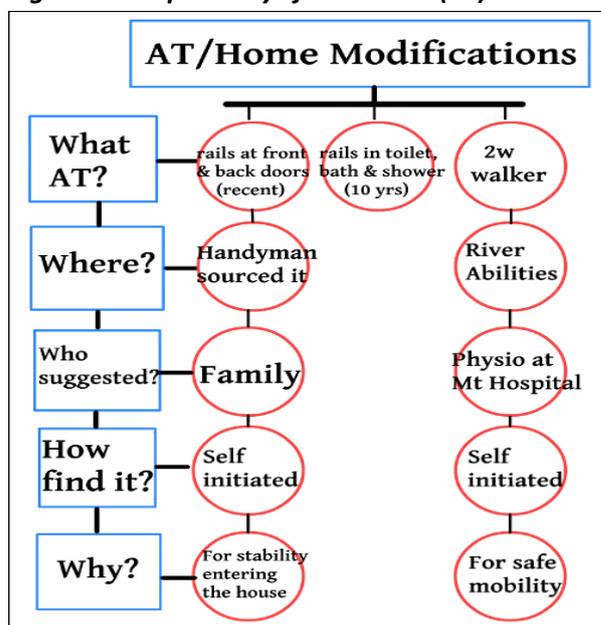
PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Hannah and John (C6)

Hannah is a frail 83-year-old woman living with her husband, John. She has medical problems including arthritis and a heart condition. She has supportive children, receives HACC domestic assistance and resides in the City of Melville, which provides financial assistance to some seniors.

- Funding experiences: Hannah reports getting no help with funding or finding AT despite 'being told there would be'.
- Current issues: Having waited 'in vain' for public provision, the family decided to install handrails at the front door; however, these are too far apart for practical bilateral use: 'the handyman decided where they would go'.
- Wait time experiences: Despite longstanding waits for walking aid assessment and for handrail installation, Hannah's family described a fear of consequences and of making waves. John states you 'need family who are prepared to battle'.
- Perceived barriers: No one at the hospital suggested trialling the walker at home; so, the family reported, they ended up with the 'wrong walker' (doesn't suit needs, falling over and hitting people with it, now stored in garage); regarding poor follow up, the family commented, 'some places must have three or four referrals for mum, what happens with that? Does it go into the too-hard basket?'
- Ideas for improvement: 'The family suggest following through on what they say they are going to do; an advocate for every person; better co-ordination; get a subsidy and get your own AT instead of this six-way thing; trial AT in your home before you buy it'.

Figure 20 AT pathways for Hannah (C6)



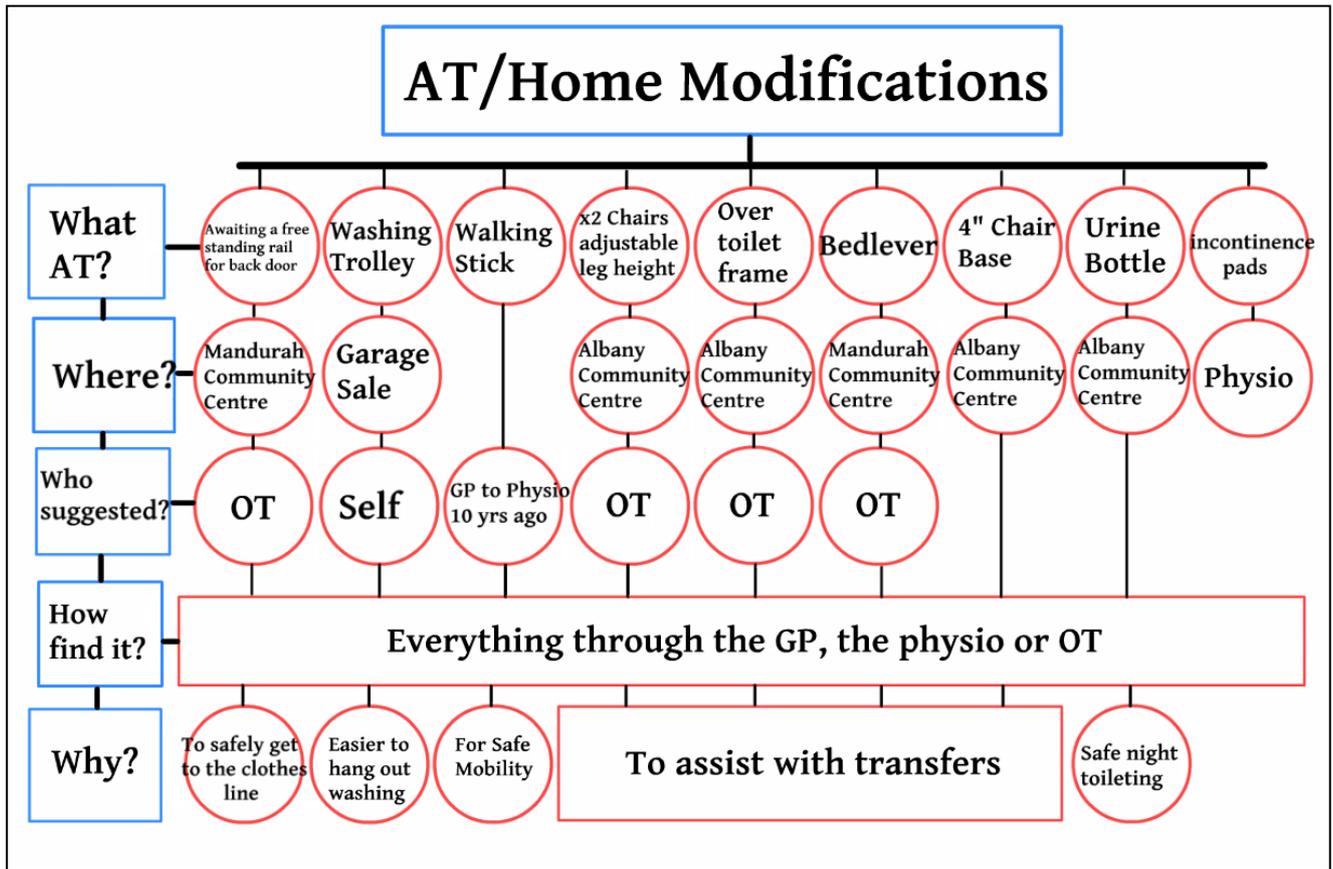
Benetta and Robby (C7)

Benetta is 76 years old and experiences fatigue and issues with arthritic knees. She lives with husband Robby, also in his 70s, who has a hernia and suffers from fatigue. The only service they receive is gardening through HACC once a fortnight or once a month (they were not sure). The couple live in a rented house, on a section with a very steep recline starting at the

back of the house. There are no steps leading into the front door; at the back entrance there are four steep steps, with no rails. Benetta reported having falls due to 'her legs not having any energy'; she said her GP and the physiotherapist are aware and is she is awaiting X-rays. No one has discussed progressing her walking aids. Benetta reported her main problem was not being able to get down her back door steps to hang her washing out. Initially, the couple wanted a ramp but the OT (who they repeatedly referred to as 'the physio', later confirming it was an OT) who assessed the back entrance said a ramp was not a practical or cost-effective option for the layout of their property. Instead the OT recommended one free-standing rail.

- Funding experiences: All Benetta's AT, except for the washing trolley, is on permanent loan. The couple briefly hired a lounge chair while awaiting a loan item.
- Current issues: The interviewer noted a suboptimal solution is underway, possibly because the alternative solution (putting a gate in the fence on other side of house) is likely not to fit in the 'ramps and rails' solution options of the chosen provider. The current recommendation is to install a rail at the set of steep steps; however Benetta won't be able to get down steps holding laundry even with a rail. Benetta stated, 'well, Robby will have to carry it out for me', but later noted that Robby would need the rail as much as she did. The couple had also considered another option to put a gate in the fence so they could use the front door, and go through the gate to get to the line, which presents a much safer option. The question remaining for them was who would be funding such a home modification?
- Wait time experiences: This couple felt the time taken to get the rail installed was a problem, stating, 'but it's been five weeks and we have heard nothing from them'. They were told that the rails would be supplied and paid for, with Benetta stating, 'I am not paying for it, it's not my place'. However, installation was delayed because their landlord hadn't authorised it. They seemed unaware of this being a requirement before rails could be installed. It appears the OT hasn't identified and followed up that they need to obtain the landlord's signature on the form.
- Unmet needs: Benetta would like a swivel seat for her car but feels it is too costly; she is unable to dress her lower limbs (unknown, unmet need); physiotherapists have not discussed progressing to a better walking aid.

Figure 21: AT pathways for Benetta (C7)



Roles of pathway providers

The following section draws on participant observations about the roles of the main pathways to AT. Given this section represents the views of all participant groups, some information about the pathways may be incorrect, representing the level – and sometimes the inaccuracy – of general knowledge about pathways.

Role of the AT practitioner

'AT practitioner'⁹⁶ is a term used to capture professionals who have skills and knowledge in aspects of AT. Occupational therapy is the profession with the widest scope of coverage of AT device categories, as evidenced by the prescription rights of OTs across state funding schemes; however, a number of other professionals have significant and potentially more in-depth expertise in focal AT areas, for example nurses in pressure care and continence; physiotherapists in seating and mobility; podiatrists in footwear; prosthetists and orthotists in body worn devices; and speech pathologists in communication devices. A range of others, including rehabilitation engineers, specialist (credentialed) AT suppliers, and AT-user experts, can also be described as AT practitioners. The discussion below considers whether AT stakeholders within this study demonstrated capacity as AT practitioners.

Common sense tells you what they should and shouldn't have. (RA9)

The topic of getting non-complex AT provision 'right' generated significant discussion with all focus groups and individual stakeholder interviews, with many views on whether understanding and recommending AT is in fact rocket science or common-sense. The data indicated that participants stated that the risks around non-complex AT were negligible, noting that purchase was freely available to private purchasers. Also that the risk and disadvantage of waiting can be outweighed by the risk of non-optimal fitting or installation. These views have been documented and forms the basis for the British Occupational Therapy Associations' support for minor adaptations without professional input.⁹⁷ In Focus Group 1, this perspective was echoed when, in answer to the question 'is this rocket science or common sense?', a clinician stated: 'It's common sense ... look, sometimes you see a four-wheeled walker or single point stick and you think, that looks very high, but at the end of the day they have been using it for years and its made a huge difference to their life' (OT Stakeholder).

While some devices were acknowledged to be straightforward, opinion differed across all research participants as to when AT professionals, usually identified as OTs, might be required. RAS assessors and the majority of AT stakeholders demonstrated a sense of caution

⁹⁶ The ARATA 'Making a difference with AT' papers. Caloundra: ARATA; 2012.

⁹⁷ Heywood F, Grisbrooke J, Sheehan K, Simons Powell M. Minor adaptations without delay – a practical guide and technical specifications for housing associations. London: College of Occupational Therapists; 2006.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

and described an obligation to refer through an 'appropriate' pathway to 'be on the safe side'. This was despite clear evidence that many stakeholders held substantial knowledge about AT, and possessed a good understanding of its use and application to certain clients and settings. For example, a nurse from one specialist neurological visiting service, largely staffed by nurses with aged-care experience, was knowledgeable about devices such as adapted cutlery and transfer devices. She described how she had identified a need for an electronic pill timer, which cost \$42 and was not available via CAEP. In describing her role in this she demonstrated a sophisticated understanding of the clinical decision-making process, taking into account 'age, issues, carer help, co-morbidities' of the client, describing the characteristics and suitability of various devices, including those supplied from the UK, and the need for appropriate training in device usage and set-up. Other clients were noted to visit the service to have their pill timers set up. In this instance, the knowledge and experience of staff around the specific needs of this client group appeared to have resulted in an appropriate and skilled assessment of person, task and environment, and the tangible support being offered (for example, demonstration, set up) represents best practice. When asked about her role in demonstrating such AT, however, she stated it is 'absolutely not' their role to be assessing:

We help to identify the need, we know what we're best at – someone else is the expert; we want to have a good referral and a good pathway. (AT stakeholder)

Role of the ILCWA

Generally, the service perceived to be most abreast of AT pathways was the ILCWA. One stakeholder stated, 'The ILCWA and the ILCWA OT's [pathways] know the most'; Another said, 'full needs are met at the ILCWA – my idea of the gold standard'. The 'look and try' aspect of the ILCWA was a repeated theme among RAS assessors who described the ILCWA role as follows:

... the ILCWA will show you what will suit your needs. (RAS assessor)

Two of the seven clients interviewed specifically mentioned ILCWA: Haresh (C1) described his pathway to the ILCWA commencing in a rehabilitation facility, thanks to the local police 'The car hand controls – the police came and talked about driving and may have recommended ILCWA' (Haresh: C1). Mary (C4), on the other hand, had heard of the ILCWA but had never visited it.

One nurse, however, saw the ILCWA as a limited pathway, because 'the ILCWA is a place where you can see and try but they don't sell. It would be good if they could order it too'. This lack of sales was seen as a strength by some RAS assessors who commented on the difference between the ILCWA and suppliers who, by contrast, were sometimes more motivated to generate income than focus on quality advice.

Thirteen of the 19 RAS assessors commented positively on using the ILCWA in a range of ways. The ILCWA database was used by RAS assessors, both to look up equipment and to print out information for clients. Clients were referred to the ILCWA website (if they had a computer) to view more than 3000 items, and advised that the ILCWA had allied health

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

professionals skilled in the area of AT. Additionally, clients were advised 'to go to the ILCWA to try a product' (RAS assessor).

However, some RAS assessors and stakeholders identified that clients were unaware of the ILCWA or, like Don (C5), were unable to 'get to places to trial equipment', including ILCWA. The GP stakeholder offered the following advice:

If ILCWA were to make their services a little more accessible. ... You can't just walk in because they need to have an appointment with the OT; I don't know if that's changed and if everyone else even knows that. I remember going into the ILCWA when I was training and thinking: this place is really amazing; this place has stuff that no one else really knows. So somehow that message needs to get out to people. I was really impressed that there were things that could help you rake the leaves and hang out the washing, pour the kettle. ... These things are there but no one knows about it. I don't know what other places people congregate at, is it the bowls' clubs etc.? People need to know about it and they could have pamphlets. (GP)

Role of the AT supplier (AT-focus)

AT suppliers in WA appear well regarded in terms of their AT expertise and a service ethos in which many suppliers will relinquish a sale, and connect or refer clients to clinical pathways if they feel this is required. A rehabilitation supplier described their approach as follows:

If someone walks into the shop and says I'm here to buy a wheelchair – I've been in this business for 35 years so we don't say 'here's four wheelchairs, take your pick, off you go', we would never do that. If there is a complex need, we would try to examine that person's a) ability and b) needs, and if we think it's complex, we would refer them back to the ILCWA. Ninety per cent of the time we say 'here are some brochures, here is what we have but you need to talk to an OT, you need to make an appointment and then come back to us once they have identified your exact needs. So as much as we can we try to guide them into selecting the correct bit of equipment, especially when it comes to complex equipment like power-driven wheelchairs. If it is a simple thing like a walker or something like that, well, they are generic products, we have a range. Even with that we try to identify what their needs are, lifting it into the boot of a car for example. So there [is] a huge range of issues, it's not that simple. Very rarely would someone just come in and say 'I want that'; it just wouldn't happen. (AT supplier)

HACC clients reported positive experiences with AT suppliers, particularly in their customer service. For example, Hannah's family bought a walker from River Abilities: 'They were very good, they just delivered it to the door before mum came home from hospital'. In this example, however, the soft technology elements that make up a good practice scenario (demonstration, adjustment and trial) were presumably not followed through. Several comments in the focus groups alluded to the fact that a small number of retail outlets will 'just sell', and pharmacy was seen to fit into the latter category, apart from specific expertise in continence and medication management.

The subset of specialist services that sell or provide specialist AT were highly valued, for example the Association for the Blind and TADWA. For stakeholders and clients seeking pathways likely to deliver needed AT, the 'one stop shop' nature of such services was a major plus, in addition to the knowledge such providers were perceived to hold regarding disability and their specialist areas.

Role of the AT supplier (generic)

'The shoehorn came from Coles' (Don: C5)

Generalist suppliers were noted to be sources of non-complex AT by all stakeholders and clients. Most stakeholders identified a key disadvantage to be the lack of soft technology, which, when coupled with a client or families' uncertainty about their own needs, was seen to frequently lead to non-use or abandonment. Several instances of clients purchasing 'off the shelf' items that were later found to be inappropriate were identified by stakeholders. As one OT stated:

They go to a shopfront and this you-beaut thing ... someone says 'come and buy' ... and they don't think about it in the context of their physical ability, their functional ability, their carers or the layout of their home, so you can't even get it in the door. (OT stakeholder)

As is demonstrated in the HACC client pathway diagrams, a proportion of the AT in use by each client was sourced from generalist suppliers. These were often felt to be easier to access in that they may be more local and familiar than specialist AT suppliers. For example, Rowena (C3) describes her starting point for obtaining AT devices as being local and generic retail outlets. She described obtaining the walker she uses around the house from the chemist – 'I saw it advertised on a flyer' – while an additional walker came from 'an aids place on South Street, close to home; I just knew it was there, I tried it at that place too' (Rowena: C3). A lid opener was purchased through Penny Millar via a home-delivered catalogue. Rowena stated if she did need to get something, such as a shower stool, she would go to a place a friend had mentioned, 'in Cannington, don't know the name but it has everything' (Rowena: C3).

Role of the pharmacy

If funding was not available, pharmacies were seen as 'good for things that don't come under CAEP', for example a urinal bottle for a gentleman with nocturia, which provides a cheap accessible alternative to a bedside commode. On the other hand, pharmacies were noted as a key source of non-mediated AT purchases, and the lack of decision-making support and advice was seen as problematic, as one OT stated: 'Some of these pieces of equipment, they might be perfect for some people, but not others, so they might buy them and not have the dexterity'. An ACAT OT commented further:

You do get to see what they have in their home environment. ... You see a lot of four-wheel walkers and nine times out of ten they have bought from the local pharmacy because they are out on display when they go to get their medication. So whether or not it's the most appropriate or they even need it, that's what they've done. (OT stakeholder)

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Pharmacy-sold walkers were noted to be 'usually poorly adjusted. ... Usually people sit without brakes, use as wheelchair / use as hoist'. By contrast, an HACC client, Rowena [C3], appeared satisfied with her pharmacy-sold walker. She described obtaining her walker because she saw it advertised on a flyer: in order to find one the right height, she stated, 'I got to try a few at the chemist to get the right one'.

Of the pharmacy staff interviewed, two did not articulate a role in 'soft technology' or advice and adjustment of devices, suggesting they 'did not have a clue' as to where to direct people for advice. One pharmacist acknowledged the importance of 'proper, in-house assessments' from occupational therapists, but noted:

The person that buys it is usually the daughter ... that will come in and say I am chasing this for my mother or father. ... We don't have access to the person so they are telling us what they need, and so we've either got it or we don't. (Pharmacist)

According to our small sample of pharmacies, the retail model appears to govern the client experience. While the pharmacy is likely to be the closest source of product, wide variation in AT was noted across stores. One OT commented regarding wheelchairs: 'They don't even look at the weight capacity'. Two pharmacy interviews failed to demonstrate an awareness of the need to adjust crutches, measure for wheelchair seat width, or advise as to the operation of brakes on wheelie walkers, while the third pharmacist was noted to 'go the extra mile' in making sure no AT left the pharmacy without being unpacked, fitted for the client, allowing the opportunity for trials, and employing a nurse. Overall though, the provision of necessary soft technology to support the purchase of an AT device appears inconsistent and inadequate. The lack of recompense for soft technology in the pharmacy-funding model is a hurdle, and other specialist areas (such as lactation or diabetes consulting) appear to have been well integrated into pharmacy operation. Commenting on access to AT via pharmacies, one pharmacist stated:

If we are trying to come up with a system that can increase accessibility, then trying to involve [the] pharmacy now is going to be near impossible because, unfortunately, we are not going to have the resources to fund the time because pharmacies are going to be running with one pharmacist, unless there is a specific remuneration involved for a consult. (Pharmacy stakeholder)

In terms of potential roles for pharmacy staff however:

It would be good if there was a certificate of training for that. A mobility-aid training course would be good for someone like a pharmacy assistant or pharmacist. And being a lot more accessible to the community it would be helpful to have that training. (Pharmacy stakeholder)

Non-complex AT, broadly, was seen as a category of equipment that is hard to sell and bulky to stock:

We haven't really looked at the range and consolidated it, or anything; it's just what we've always had. We just keep doing it, there are a few things there that are

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

redundant, they've been there since I started here and they are probably never going to sell. (Pharmacy stakeholder)

The range in each pharmacy was described in terms of sales, for example, 'Walkers and wheelchairs but mainly the walking sticks and frames, seated walkers, tri walkers, a lot of the light mobility aids and frames. A lot of the hand aids, like the pill splitters and crushers, those sorts of things. [We] also stock easi reachers, everything sells well ' (pharmacy stakeholder). Another commented, 'In the city – probably just the walking sticks, probably the haemorrhoid cushions, the urinals probably go ok, the pedometer goes ok, I think because it is cheap' (pharmacy stakeholder). No pharmacist interviewed provided a full range of AT. Each pharmacy stocked a limited selection of the non-complex AT, and the contents of that differed in each pharmacy. One pharmacist stated, 'We are quite big on all of these (mobility, medication and continence) at the moment, not necessarily the ramps and those type of things' (pharmacy stakeholder). In relation to personal care, one pharmacist commented: 'We don't stock these things but should; personal care we don't deal with as much, we do some of them ... we are talking about getting more of the range in, and give it more wall space' (pharmacy stakeholder). Another commented, 'We stock the tablet crushers, cutters and packaging, not sure if we have the eye dropper or asthma aid' (pharmacy stakeholder).

Pharmacists tended to rely on ordering on demand: 'We've got some catalogues so when people are looking for specific things that we don't stock we can do quite a lot of special orders'. In terms of meeting client need, pharmacies appeared to stock based on the local demographics, with one pharmacist noting that 'Webster packs – generally [sell to] the elderly. For the crutches – usually for sports injuries and usually a bit younger' (pharmacy stakeholder). One pharmacist commented, 'the reps would be the ones updating ... it's all based on what is selling, which is generally what people want anyway, it's like anything, like a new multi-vitamin or shampoo, if people are buying it we should stock it' (pharmacy stakeholder).

Ten stakeholders and one focus group raised the issue that 'clients need to go somewhere where they (suppliers) aren't going to make money'. This theme refers to suppliers' potential lack of independence, given the nature of a profit-making business. The GP explained:

I often have a client who will go to a pharmacist to buy something that may or may not be a good idea; sometimes people buy things that will reduce their mobility because that is available in the private sector. If it is something like a single stick that's fine, but if it's something with multiple prongs and Zimmer frames and things like that I certainly say 'look, you need a physio assessment. Don't get yourself dependent on these things and lose your muscle tone and balance etc'. ... Pharmacists would be my biggest concern. Conflict of interest big time! Does it happen a lot? Yes, when it comes to drugs or equipment. (GP)

In terms of linking clients to funding or assessment, one pharmacist commented 'I am not aware of anyone being funded'. Another stated, 'I am sure there is probably some way they can access a pool of money for cheaper subsidised products, I wouldn't know what that

process is'. It was acknowledged there is a lot of work in keeping updated with options, 'You've got to know what services are available. The problem is pharmacists are under pressure every day, we don't get paid for any service we provide, whereas doctors get paid'.

It appears that one pathway is GP-to-pharmacy, and this is likely to bypass any AT practitioner involvement or funding body. One pharmacist made the following comment on the role of the GP in AT recommendations: 'I think they [GPs] indirectly make recommendations to get an aid, and they [clients] have come to me and said their GP has told them to get it. So they [GPs] have been involved in that but I don't see a written referral for it'. However, GPs were also seen as both busy and time poor, and therefore as having a limited role in such a pathway.

Role of the GP

Interestingly, as with the pharmacy where many stakeholders assumed a specific role (usually around medication management and Webster packs), GPs were identified as pathways for specific purposes, as well as being a desirable (yet ineffective) major pathway. The GP who was interviewed agreed: 'Clearly they [GPs] have a role; usually they know the patients better than anyone else for the majority of people. And they often see other members of the family, who often raise concerns about what has been going on' (GP).

Seven stakeholders referred to the fact that GPs may not know enough about AT and pathways, and the GP concurred, noting:

It probably varies depending on the GP's background ... if [you have] ever worked in a geriatric ward you know what's available and you know what the OTs, physios do etc. and that sort of knowledge stays with you forever and you know how to access the system and refer. I think it is difficult for people who come from overseas and don't necessarily have those networks and don't necessarily know what is available ... don't know about all our systems. (GP)

Demonstrating this knowledge of allied health pathways, the GP described referrals as follows:

I would usually send them to a rehab and aged care facility. Depending on the area the person lives in it is a reasonably easy referral. They are usually there to assess within the home in a usual time frame. ... If I am referring for aids I am referring for aids. I ask them to assess for home aids, walking aids etc. Sometimes it might be someone who is not bad enough to need rehab and aged care so I think they could do with learning about what is available so I suggest they contact the ILCWA. So, if it is something visual or hearing I tell them it's a good idea to book an appointment with them. Or if someone has a wrist problem and they are capable of walking and they want a kettle they don't have to hold. Besides, it's a fun place to visit I tell them. ... I just wouldn't think to refer someone to an OT terribly often unless at times when someone is post-surgery or has developed a chronic illness and needs some help doing stuff. And I am more likely to refer to someone to get help for someone from Silver Chain; this is the

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

type of situation where they should be able to get home help and they should be able to do some things in their home with help. (GP)

Several OTs commented, 'We ask the GP to monitor if people change, for example once you have a scooter', and a range of stakeholders expected that the 'GP would pick up continence'. A multicultural worker noted a role for 'good' GPs, which is only as good as the pathway selected: 'I think GPs have a role here because in a lot of the communities the elderly rely on the GPs to inform them of what's out there ... some good GPs say ILCWA but they may refer them to companies and to Google'.

Overall the sense was that GPs are 'very busy and don't have enough time to tell carers they can get information from ILCWA or CRCC's [Commonwealth Respite and Carelink Centre]' (AT stakeholder). The working conditions of GPs were seen as a barrier to good practice, 'They have a 15-minute rule and therefore they look at only what they need to treat and not the wellbeing aspect of it ... the GPs need a lot of education. They are very busy' (AT stakeholder). The GP added that the only avenue for follow-up is when the client 'comes back' (GP).

Several comments were made regarding the potential role of practice nurses: 'The GPs get overloaded with information, but when they get approached by their practice nurse they can get to the GP's and inform them and hopefully make a bit more of a cohesive team'. Additionally, the representative of a Medicare Local suggested a potential role in linking clients with AT and with allied health support.

The perspective of the GP interviewed presented an interesting contrast: she described the GP needing to 'work the system, that's what we become specialists doing' (GP). She noted key barriers as 'having difficulty finding the information and the difficulty in the logistics of getting the information to the patient' (GP), and described the need to 'do a bit of homework again' when known paths change or staff leave: 'I am not sure if people have to pay if I refer them to Silver Chain, if there are charges for incontinence things, all those sorts of things change over time. It's not knowing what patients get or don't get ... I am not 100 per cent sure so I will often use the specialist physios when I know about them' (GP). In terms of staying updated, the GP had the following advice:

I have always advocated the best way of educating the GPs, who are very busy, is to give them information that is relevant to them. GPs are always interested in information that relates to a patient. ... If I get a letter back from a physiotherapist who has assessed my patient while they have been in hospital or following my referral, whatever they say about my patient is education that is valued, that is the real thing. ... If one of my patients came in with this amazing new thing I would know where to find the info. Because I go straight to their file and I have got it there because I remember the person, I don't remember the thing. ... Try to attach that info with patients whenever you can, whenever you write to us about specific patients (GP).

The role of HACC clients and carers as expert AT users and self-advocates

All HACC clients, or their families, had self-funded elements of their AT. Carers, often spouses and sometimes other family members such as children, played a key role in suggesting and obtaining AT, often drawing on their personal experiences to make a decision, for example Albert observed his past role as a volunteer helped him work out what aids he needed for Mary (C4). HACC clients and families therefore represent a significant 'pathway' for self-sourcing AT.

There was a range of opinions among stakeholders and clients regarding the idea of informed consumers or AT user experts, with significantly less confidence in the idea of skilling up consumers who are frail aged, compared with the younger disabled population who are expected to 'know their own bodies'. Clients were often noted to be unsure how to adjust their gait aids for height, as one OT noted: 'in discussing when we are putting rails in, which we do almost daily, I always say to the person – "Where do you think this would most benefit you?", and look, to this day I have yet to find anyone who said "I want it there, that would be the best place"'. By contrast, participants from a visual impairment service noted 'a lot of consumers are very savvy, ask for modifications to their equipment'. One supplier commented 'it's the way of the world – skill them up'. Interestingly, a day centre coordinator described the learning that occurred between AT users in her facility: 'Promoting AT, it's best if they do it amongst themselves ... we have people who in the beginning were coming and [were] dizzy and prone to falls, but then they saw those people are bringing the walkers. One brings it, then the others are feeling more comfortable'. Benetta (C6) was only swayed by getting the walker she needed when she saw others using them, stating 'they all had one and Rosie had 2!' (Benetta: C6). This was despite the initial recommendation from the physio, urging of family and trial at the hospital: Benetta described being 'put off as the walker had stiff brakes' (Benetta: C6). One nurse commented 'It would be the responsibility of the client to say 'oh I can't do that,' [that is] use a regular inhaler, then a pharmacist should say we have this modified inhaler' (nurse). This set of responses suggests that clients becoming informed about AT is ad hoc and unpredictable at best.

Self-advocacy is challenging for clients in some cases: the families of two HACC clients described major issues in advocating for needs to be met. In the case of Hannah (C6), her family, describing the at-risk mobility status of their parents, noted the need for:

... an advocate for every elderly person. ... What worries me is mum and dad have a very supportive family, what happens to the people who are living alone, like some people we saw in hospital, what happens when the physio says 'you need ...', who's going to look after those people? (family member of C6)

In this discussion, Hannah (the recipient of aids and services) was quite stoic, commenting: 'Oh they were only doing their best. ... We are grateful for what we have. ... Be fair, 50 years ago we didn't have anybody, and my people they looked after their own'.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

The idea of collaborative partnerships between clients and AT practitioners or AT stakeholders deemed to have expertise was touched on across all focus groups and in the majority of interviews, and is encapsulated in the following exchange:

[OT 1] It's all about working together, because your expertise, plus the expertise of the supplier, and the person who's actually going to be using it, you have to all work together to get the outcome, it's never only one person ...

[OT 2] And the more information somebody has ...

[OT 3] I have clients that I could almost send to the shops themselves, because we've been through the process.

However, such collaborative partnerships and the consequent skill development of HACC clients are reliant on the availability of AT experts to engage in these.

New service delivery models focusing on client choice and autonomy, such as the National Disability Insurance Scheme (NDIS), were seen as concerning, with one OT commenting:

If you give a bucket of money to a client, you are going to get some people who are very wise and do a lot of research, who consult the right people. There are going to be other people who spend the money willy nilly and then can't have a shower for six months. (OT)

On the other hand, a comment from the multicultural coordinator framed client autonomy within the context of information:

It is then up to the client to work out their affordability, with advice on funding available, their wants and needs in terms of aesthetic appeal, choose a colour or a brand, etc.; they have a lot of choice. (Multicultural worker)

An additional perspective on patient autonomy was provided by the GP, who stated:

People don't often tell the health professional about their needs, that's a good and bad thing because we often medicalise things a bit too much and people cope well with the way they do things, [it] doesn't mean we have to name them and make it into a problem, because it isn't for some people. For example, a 94-year-old woman who had kept good health all her life came to see me and when I examined her she had been using safety pins and what were essentially incontinence pads and had done that all her life, I did offer to refer her but she wasn't interested in the new fan-dangle stuff. ... It wasn't an issue she wanted to focus on. There are many things like that where people manage very well, and maybe in some of those cases, yes we could have improved their quality of life but maybe we don't and maybe they are perfectly ok without us. (GP)

Role of RAS assessor

RAS assessors were appreciated by the HACC clients interviewed:

She was very helpful, all the RAS assessors contribute and point out things we hadn't thought of, all very good, excellent service. (Haresh: C1)

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Not all clients were clear as to the pathways to RAS assessment. One client described ringing HACC to get RAS assessment, but several mentioned that they did not know how the RAS assessment was initiated, commenting that 'someone arranged it' (Don: C5), or 'they just turned up' (Mary: C4). Neither the nurses, the physiotherapists nor the GP interviewed had heard of RAS. In these instances, the interviewer explained RAS teams, role and qualifications. One nurse stated:

Sounds useful, not aware of their services, if I was I would certainly use it. (Nurse stakeholder)

Other stakeholders who were familiar with RAS assessors were extremely positive about the RAS role, including the following comment from a multicultural worker:

Our RAS assessors do a fabulous job, they do research before they go into the home and they sometimes come to us for advice. (Multicultural worker)

Assessors clearly and repeatedly identified their role as identifying need rather than formulating solutions: 'We are told to see how to help the person and not just look at what support to put in' (RA3). That said, pathways were informed by the knowledge of the assessor and the information-sharing available to them: 'Local knowledge, you have to learn that yourself' (RA5). In turn, this was influenced by their attitude as lifelong learners, and the workplace culture of continuing professional development (CPD).

It was evident that RAS staff have minimal orientation into service pathways that provide AT. This could account for the variable capacity of RAS staff to identify pathways. One stakeholder commented RAS tend to 'refer really well', but some pathway providers noted the impact of RAS pathway knowledge on appropriate referrals: a CAEP OT stated that at one point 'referrals dropped because new assessors didn't know'.

It was noted to be outside the role responsibilities of RAS assessors to follow up on outcomes from referrals. Lack of feedback as to how referrals are progressing was noted as a problem by 11 of the 19 RAS assessors, in terms of knowing if pathways are actually delivering outcomes: 'We never hear back if they went to see them, I presume they have' (RA9). RAS assessors noted they had no way of knowing whether their recommendations and referrals were pursued by clients:

We don't know until the following year and we see the equipment in place, some do get it but most don't. I always follow up then [one year later]. (RAS assessor)

[It would be good to] send a RAS team to find out why this service wasn't accessed. We don't know why and there's not enough research in the area to tease out the issues. (RAS assessor)

'RAS assessors *should* visit for reviews but don't'. (AT Stakeholder)

Eight RAS assessors commented that it was the clients' responsibility to initiate contact if they encountered difficulties, and saw this as part of 'empowering' clients and fostering

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

independence: 'We always follow it through, and give clients our cards, but we only review once per year (RA1). More bluntly, one commented: 'We can't hold their hands through the process, we have chats with GPs, we help them with forms' (RA10). Despite this consistency of response, some assessors did report significant time and effort in supporting a client's access to AT, though also noted the workload stresses of doing so. The following quotes typify comments from assessors interviewed:

When I started I was seeing 10 clients a week now we are seeing 13 and soon we will be expected to see 15 per week, many people will leave. We just don't have the time to do what we need, I like to spend three to four hours on a client, this includes writing up assessments and any follow up. As it is, we have no time built in to our days to learn about community resources, it's up to us in our own time to find out. (RAS assessor)

We work four days a week, four clients a day; if you get a complex one, everything gets thrown out. Can't keep up with all the paperwork. I just don't have the time to do any follow up. Just don't have the time to go through all the aids, what's needed, I can't assess them showering. (RAS assessor)

This set of comments captures a disjuncture: on the one hand, many clients have difficulty enacting assessor recommendations and purchasing AT; while on the other hand, RAS assessors have a lack of capacity to support clients beyond what is sometimes a basic assessment. Four RAS assessors noted that clients were provided with calling cards and a letter inviting them to get back in touch if they have not heard regarding referrals: these strategies were seen as helpful, and in keeping with wellness principles.

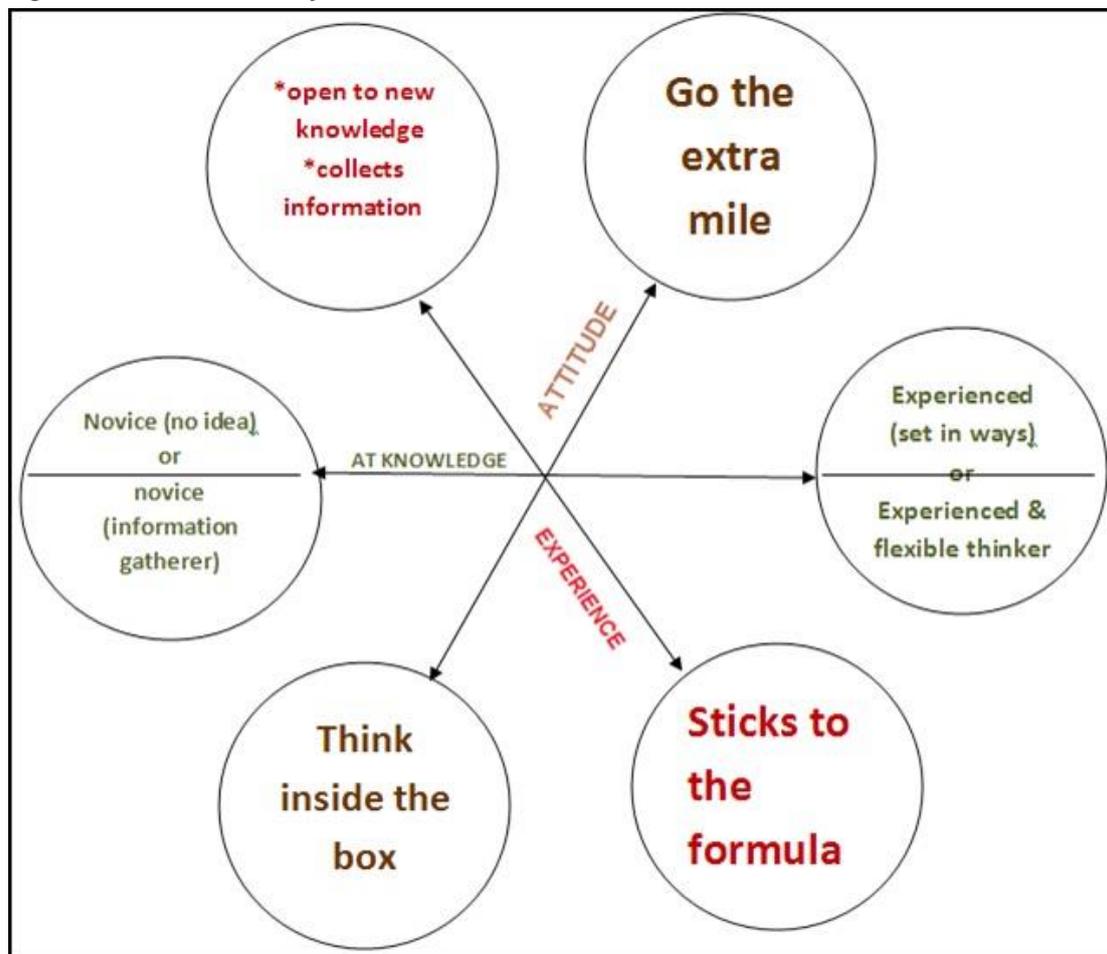
As well as recommending pathways, four RAS assessors described advising on strategies, for example with laundry tasks: 'With the washing I talk about lowering the washing line or using an ailer instead' (RA16). This was appreciated by clients, for example Mary (C4) was delighted with the outcome of the RAS assessor's 'suggestion I use my walker to sit on and wheel the bin up so I could do my gardening and do my roses. She didn't recommend any equipment for that' (Mary: C4).

Trajectories of RAS assessor skill

Given the central role of RAS assessors in assessing and engaging with HACC clients, and as central pathways to AT, this research explored the levels of AT experience, knowledge and attitude towards AT of assessors. Nineteen RAS assessors were interviewed from nine RAS teams. Data analysis identified three key themes, which summarised assessor performance related to non-complex AT. These could be pictured as three trajectories of AT skill (see Figure 22):

1. AT experience: 'Open' to new knowledge and collects information, versus 'sticking to the formula'
2. AT knowledge: 'Novice with limited knowledge' versus novice who is a keen 'information gatherer', OR experienced but 'set in ways' versus experienced and a 'flexible thinker'
3. 'Attitude' or flexibility: 'thinks inside the box' versus 'goes the extra mile'.

Figure 22 RAS AT skill trajectories



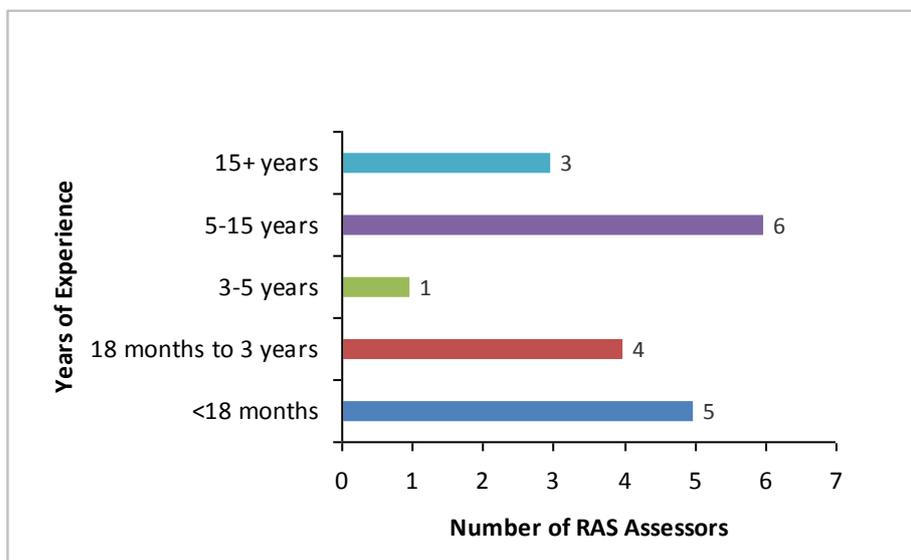
RAS assessors were analysed according to these three trajectories by the occupational therapy researcher, according to a matrix devised by the research team. Each RAS assessor demonstrated a different ‘mix’ of experience and knowledge. Each RAS assessor also came with specific attitudes to learning and knowledge, and perspectives upon the capacity of their specific RAS team in terms of manageable workloads and an atmosphere of continuous improvement. Each RAS assessor, then, is at a unique meeting point of these three trajectories. While trajectories impacted upon the effectiveness of the pathways provided through the RAS assessment process, arguably ‘attitude’ was found to be the key characteristic, as will be discussed below.

1. AT experience

A wide range of experience (both general experience and particular experience with AT) was evident within the sample, as was intended by requesting participation from one experienced and one novice RAS assessor from each team. While approximately 50 per cent of assessors had more than five years experience relevant to their RAS assessor role, 50 per cent had less than three years experience in the field, including 26 per cent with less than 18 months experience. Assessors reported a wide range of previous experience including prior targeted work experience (as OT, or in disability service provision), short periods of placement whilst

undertaking OT training, personal experience with an ageing family member, to no experience at all in relation to AT.

Figure 23 Years of experience of RAS assessors (n=19)



Eight RAS assessors (42%) demonstrated ‘sticking to the formula’ thinking, as illustrated here:

I often suggest getting their own dossette. ... I tell them better than people ending up in hospital as they've stuffed up their meds, its all a part of my spiel, I say it to every client. (RA11)

I talk to every client about where to go for aids regardless of need. (RA17)

These quotes can be contrasted with ‘open to new knowledge’ thinking by six RAS assessors, for example:

You come across things in your life. ... Learning on the job. (RA7)

I observed bits of equipment during residential aged care work. (RA3)

In-house training ... shared info via email with other RASs, it’s a huge part of it. (RA5)

I use my iPad at assessments to show aids ... [I am] doing a lot of senior phones lately, people are more tech savvy. I let a lot of people know about phones. (RA10)

2. AT knowledge

Closely related is the theme of specific AT knowledge. The RAS assessor interview focussed on non-complex AT and AT pathways based on the WA Wellness Training Module, ILCWA⁹⁸ and the HACC Guide⁹⁹ (See Appendix 5). In this context for AT, RAS assessors were asked to rate their own knowledge using the following scale:

- 0 – No knowledge / cannot discuss or explain
- 1 – Small amount of knowledge / could have basic discussion with client

⁹⁸ CommunityWest. Wellness approach to community home care: equipment and resource guide. Perth: HACC and CommunityWest; 2007.

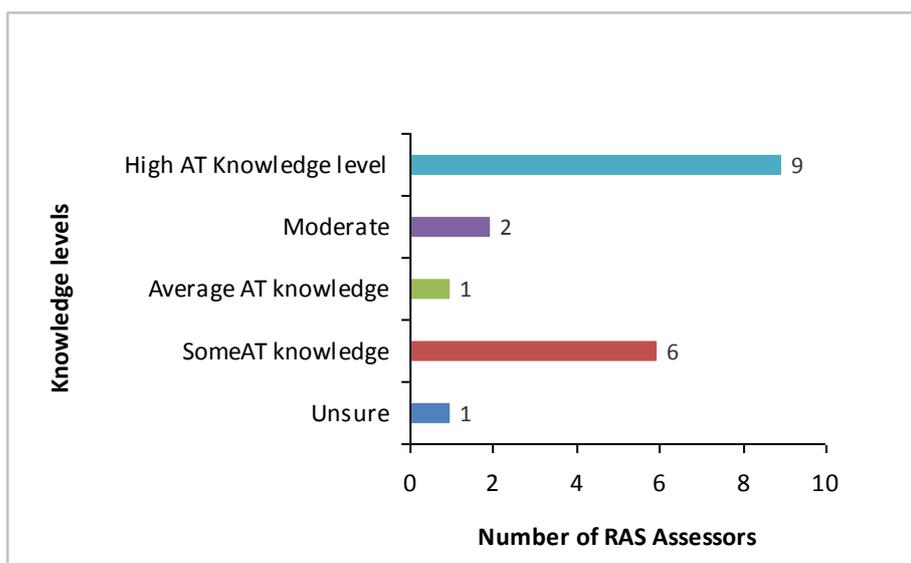
⁹⁹ WA HACC manual. Perth: Department of Health; 2013.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

- 2 – Know enough to explain well to client.
- 3 – Know a lot about this / could provide detailed knowledge to client.

Figure 24 identifies the self-reported knowledge levels of RAS assessors. Most assessors evidenced a significant degree of AT knowledge; however, 37 per cent (n=7) reported limited knowledge of AT relevant to HACC client needs (identified self as a 0 or 1 on the above scale). RAS assessors linked their level of knowledge with previous work experience, the amount of ongoing professional development available, and the degree of information sharing within teams.

Figure 24 AT knowledge levels of RAS assessors (n=19)



The following quotes are examples of this category:

'Novice with little idea'

I didn't even know there were things like that (pointing to the tap turner). ... In terms of straight back or kneeling to do things I have never really thought about it. (RA16)

Not familiar with the chair raisers, swivel seat, ramps, leg lifter, and bedrail. Thought the quad stick was to help someone get out of a recliner [regarding household AT]. Never have made a referral, in terms of need for it that's a different story. It would save a lot of DA [domestic assistance] referrals if they used this equipment, especially the mopping, vacuuming and bed making ... [gardening tools] I don't think I have seen any of these tools before. (RA16)

Novice who is a keen 'information gatherer'

Clients show me new AT that I didn't know was there, on assessments. (RA3)

[Gaining AT knowledge] It's hard, through interest group, own research ... no, not from the job. I often provide strategies, for instance raised gardens, weed on sprays. (RA18)

Experienced but 'set in ways'

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Not a gardener so I don't know what most of these things are. A lot of the times they get help with it or the family sort it out. (RA12)

Never teach techniques ... not aware of any day programs. ...With mobility aids I don't have a lot of knowledge, I would refer to the OT [on recommending AT]. It is not a huge part of our assessment, I wouldn't assess someone for aids. (RA9)

Experienced and a 'flexible thinker'

I have taken with iPhone, photos of the bathroom and sent off to TADWA. (RA2)

I suggest bending at the knees, or tell them to get their son to lower the washing line so they can reach it. They seem to know what they need, it is just changing the way they do it. (RA13)

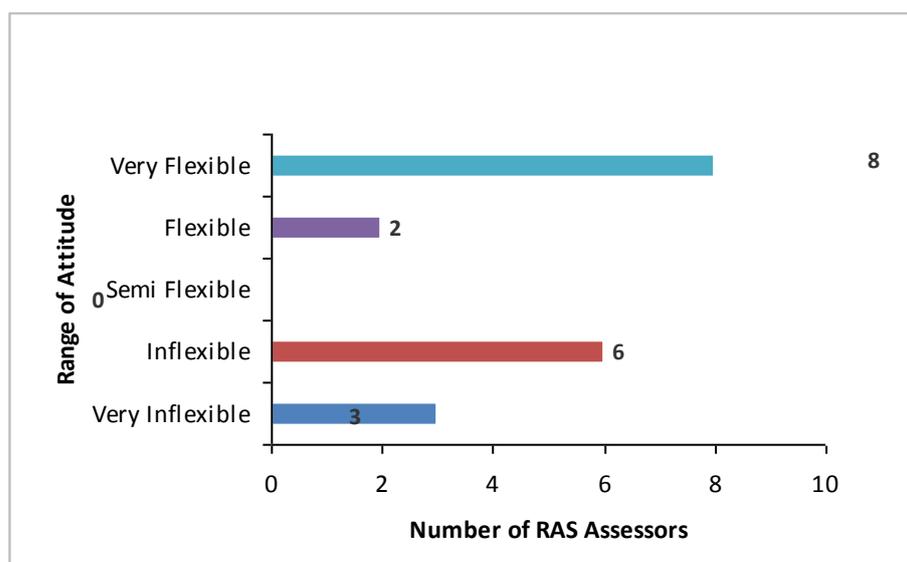
[Discuss household AT] Once or twice a week, most common referral. Definitely talk about equipment. Lots have old cleaning equipment, suggest lighter equipment, careful about what I recommend regarding cost. (RA10)

So, while it has had been anticipated that the experienced cohort may have more to offer, this analysis demonstrates this is not necessarily the case. Given the ongoing and rapid diversification of AT products on the market, a flexible attitude to continuous learning, coupled with a range of strategies, may support better outcomes for HACC clients than a 'bounded' view of options based on past experience, however extensive.

3. 'Attitude' or flexibility: 'thinks inside the box' versus 'goes the extra mile'

Attitude and flexibility was carefully evaluated from interview narratives regarding problem-solving approaches to AT, AT pathways and identifying client need (see Figure 25). Inflexibility was inferred when RAS assessors described limiting their knowledge-gathering across the AT prompt sheets: 'None of us would do anything in the laundry or put ourselves in a position we are not trained to give advice on' (RAS11), or overall attitude, 'I'd bullshit what I didn't know' (RAS 11).

Figure 25 Range of attitude in RAS assessors (n=19)



PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Broadly speaking, around half of the interviewed RAS assessors demonstrated flexible and problem-solving approaches to the identification of AT. Assessors who demonstrated flexibility in their attitude to AT described building learning networks and using strategies such as asking others, looking on websites and observing clients. The following quotes illustrate flexible thinking and open attitudes in RAS assessors:

Learning occurs in own time. ...On the job training. ... You can't prepare for everything, you have to actively research what is out there, that is how you learn in this job. (RA12)
I text my colleagues if I'm not sure *during* the home assessment so I can give alternatives ... advice on whether to recommend A or B. ... My learning networks are my colleagues, and to jump on the computer. There will never be any end to the devices and we do our own little research when a client needs something. (RA1)

This was despite a strong theme of limited access to training and time pressure, mentioned by 17 of the 19 RAS assessors interviewed (90%):

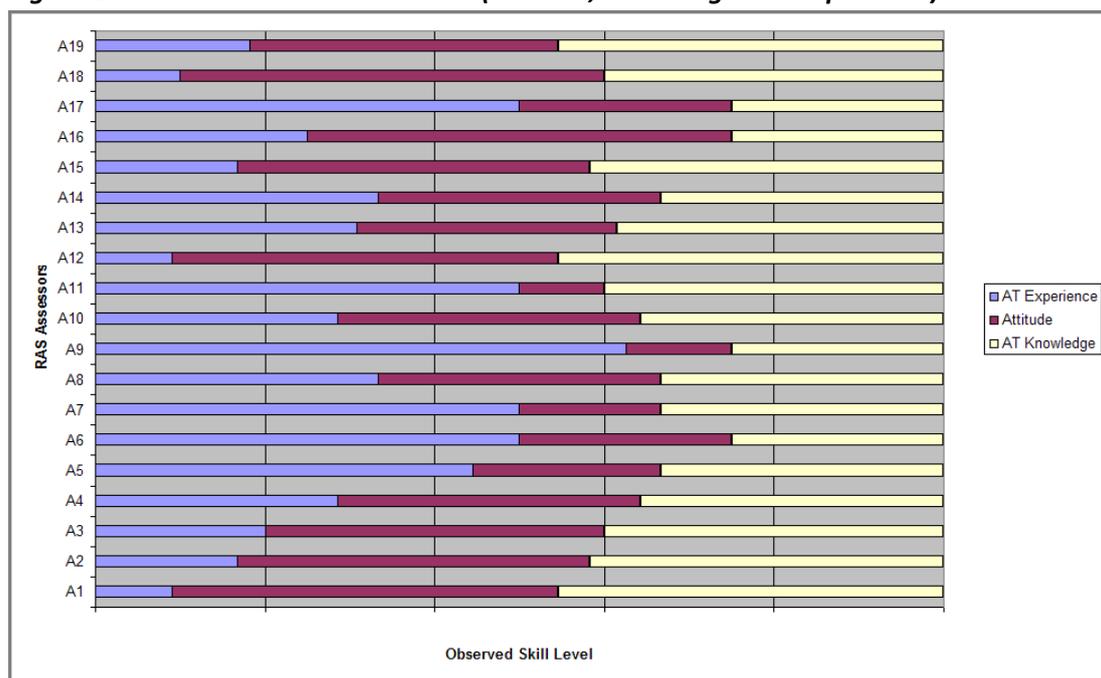
We just don't have the time to do what we need, I like to spend three to four hours on a client, this includes writing up assessments and any follow up. As it is, we have no time built in to our days to learn about community resources, it's up to us in our own time to find out. (RA12)

Overall, a wide variability of knowledge, attitude and experience was found in the RAS assessor interview sample. Given the rapidly changing AT sector, a flexible attitude and ongoing learning approach appeared to be key indicators of RAS assessor effectiveness, beyond years of experience or past knowledge of AT. As an example, one RAS assessor explains why she cannot fully address personal care: 'Just don't have the time to go through all the aids, what's needed; I can't assess them showering' (RA9). In contrast, another RAS assessor comments, 'There is a section in the assessment if there are any issues ... you might note that the client doesn't have a shower chair but would benefit from one. You always do another tour around the house, you notice they still don't have a shower chair or grab rail (RA15). Assuming similar workloads for both these staff, RA 15 demonstrates a more positive attitude concerning what is 'core business', in other words conducting a thorough assessment according to the form, and forming a feasible strategy (a 'walk through').

The data indicates that knowledge, attitude and experience did not strongly correlate: that is, years in the field or prior knowledge are not necessary prerequisites to being a flexible and innovative thinker in relation to AT. Knowledge and experience were certainly present in RAS assessors who relied upon known (and limited) pathways, but it was often the less experienced and less knowledgeable assessors who sought and delivered innovative pathway solutions for their clients.

Figure 26 charts each individual assessor's mix of experience, knowledge and attitude as captured within these methods. AT skill for the subset of RAS assessors researched appears to be a multifaceted and complex combination of factors. A particular combination of experience and knowledge did not emerge as providing the optimal skillset for the RAS assessor in relation to non-complex AT; however, attitude did emerge as a key indicator.

Figure 26 Interviewer-rated skill levels (attitude, knowledge and experience)



Acquisition of AT skills and knowledge by RAS assessors

RAS assessors reported limited background knowledge regarding AT itself, other than the work history or training they may bring into their RAS role. Given that approximately 50 per cent of RAS assessors interviewed lacked significant knowledge of AT, suppliers and funding for the HACC population, then opportunities for professional development and knowledge acquisition become increasingly important. While several assessors reported undertaking formal manual handling training as part of their job, none had received formal AT training in this way. In relation to knowledge of suppliers, one assessor reported:

I have never had any first hand experience with any of them. The only time I have ever met anyone from TADWA was a meet-and-greet when we met some of the service providers. (RAS assessor)

However, a majority reported visiting the ILCWA (11 assessors or 58%) or a TADWA open day (four assessors or 21%) through which they gained information. For most, they updated their knowledge in an ad hoc way by searching the internet, reading pamphlets from services and suppliers, or through contact with the ILCWA. Most also reported their professional networks of fellow RAS assessors and others as a source of information. In some instances, this was seen to be part of monthly staff meetings, or the team leader took a role in disseminating information via emails. However, given the high workload demands, discussed above, RAS assessors commented they had little time left over to undertake knowledge acquisition regarding AT.

What barriers exist in obtaining non-complex AT?

AT was acknowledged as an essential element of care for many HACC clients, yet often unavailable. This is a critical point given the effectiveness of appropriate AT and the impact its provision can have upon clients and their families. As one supplier noted, 'great AT is available but we are not able to fund [it], so we are creating new clients in future through an inability to prevent deterioration to carers' health' (AT stakeholder).

Access

Participant groups identified a range of barriers relating to the broad theme of access. Both RAS assessors and the AT Stakeholder group identified client difficulties in travelling to or accessing providers of low complexity AT, particularly the ILCWA. This included problems with proximity of location of providers (particularly problematic for those living outside the Perth metropolitan area who required AT from Perth), cost of transport, difficulties in utilising public transport, and reliance on others to provide or assist with transport. Logistical and physical issues in lifting and transporting cumbersome AT were also identified: 'If they don't have a car it would be difficult to get a toilet frame home' (AT stakeholder). AT stakeholders commented on the frailty of clients, who tired quickly when travelling, and for whom travel beyond the local area was overwhelming, especially factoring in issues to do with parking, negotiating freeways and traffic. Some AT stakeholders commented on the general lack of transport or restrictions around this on the part of aged-support service providers (for example, services unable to transport clients beyond the geographic region of the service). In some cases, stakeholders reported clients organising other people to pick up AT but the AT provider refusing to sell the product without seeing the client in person. Similarly, RAS assessors identified difficulties if others accessed the ILCWA on behalf of a client, noting that the client would miss out on face-to-face observation or assessment and advice. Given the mobility limitations, frailty and age of clients, it is unsurprising that transport issues were raised by 11 RAS assessors (58%) as well as seven stakeholders individually and one stakeholder focus group, and were seen as the 'biggest' issue for the cohort of HACC clients.

Wait times

Waiting times for assessment and funding of AT was identified as a barrier by all participant groups. Three RAS assessors identified waiting times for equipment assessment (through a health professional) as a barrier, which led to clients finding it easier to identify and source AT themselves. A lack of computer access and computer illiteracy among older people however was seen to be a barrier to self-sourcing given the difficulties in obtaining information regarding AT or provider locations (two participants). AT stakeholders also identified wait times as an issue (two individuals and one focus group), discussing wait times for an OT and services, as well as wait times for the development of funding applications and funding processes such as CAEP. Self-funding was seen to be the main way to obtain needed AT 'instantly'. One RAS assessor also commented on the barrier to home modifications posed by private and public landlords (including Homeswest) who had to approve any modifications including handrails, which caused delays and denial of provision. One client reported such a

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

delay was caused because the client was unaware that the handrail installation required landlord approval.

HACC clients reported various incidents of wait times and delays in provisions. For example Haresh (C1) described an extended wait period for wheelchair repairs and fitting:

It took three years to get the right footplate, for which we went through Shenton Park engineering; in the end it was the specialist who hurried them up. (Haresh: C1)

Rowena (C3) demonstrated a clear need for rails, but was 'still waiting on the rail, could be three to six months, a lot of people wanting rails, the fellow next door is waiting for them'. She didn't appear to mind waiting, stating: 'They want to keep us in our own home, lots of providers like Silver Chain want us to stay in our own home' (Rowena: C3).

The family of a third HACC client, Hannah (C6), perceived that they were not able to access the AT Hannah needed, stating 'there is no point in having all this lovely crap [referring to the glossy brochures] when it [follow up] is no good'. In terms of obtaining a walker, their daughter explained:

We exhausted the funding trail and nobody came; in the end we thought mum and dad will be buried by the time we got the walker, so we put the hat amongst the family. ... Bought and paid for the walker from River Abilities. They were very good, they just delivered it to the door before mum came home from hospital. ... No one at the hospital suggested borrowing or trialling other walkers at home.

Similarly, extended delays and lack of responsiveness were reported from a range of providers:

[Daughter] On the 23rd January 2013 we were given a referral for rails from Silver Chain. [Silver Chain] was going to come out and check, we have left several messages, we are still waiting for [Silver Chain] to come (this is eight months ago), so by March my sister took over ... they got shirty and said 'you should go to your GP and get a referral', so then my sister took mum to the doctor, she filled out all the paperwork and she said 'yes it will happen' and we are still waiting for them, that was six to eight weeks ago. So in the meantime we installed our own rails and it was costly.

Husband: The RAS assessor said, before we get the rails, call your local council, she gave us a brochure for the City of Melville and said to talk to [key worker in program]. I rang and they said she only worked on a Friday, so I rang on a Friday and left a message and was told she would get back to me about a \$600 payment per year for every senior citizen in the area and thought that would pay for the walker etc. She didn't call back so I rang on three times on different Fridays and we are still waiting for her to get back. I didn't even get the courtesy of a reply from any of these people whatsoever. We have to be careful, if we upset any of these people you get reprisals.

Daughter: ... Been trying for 12 months to get rails ...

Cost and funding

Thirteen of the nineteen (68%) RAS assessors, four stakeholders and one stakeholder focus group identified cost as a barrier to AT provision, including cost of equipment and of transport. Costs associated with many items were discussed, including medications, personal and home care, Webster packs, care alarms, continence products, walkers, ramps and home modifications. Stakeholders also commented on the difficult financial situations of many clients who were already rationing the meeting of their needs due to costs. Clients needed multiple items, hence costs multiplied. As a result, assessors noted that clients often went without needed equipment due to cost. As one stakeholder noted, 'We see a lot of people who don't want to go onto a Webster pack due to the cost' (AT Stakeholder).

Four RAS assessors commented on the lack of client knowledge in relation to funding availability and eligibility, with one commenting that '50 per cent, a lot, of clients don't know about the government assistance.' Additionally, a stakeholder working in multicultural support commented that migrants frequently have little experience of AT funding and support systems in their country of origin and have no knowledge of them in Australia. Similarly, a GP stakeholder admitted to having little knowledge of funding systems and supports outside of hospital environments, noting it was difficult to maintain accurate information in a complex and frequently changing environment with differences for public and privately funded patients. Some disability care providers, RAS assessors and day centre coordinators present in the focus groups were not aware of a major funding pathway, CAEP. One stakeholder found out about CAEP only through attendance at the focus group, stating, 'Just today I saw someone who needs a special bed and can't afford it, I need to come and talk to you people here. I work for HACC, I am not sure how funding works ... to be honest I have just heard about CAEP today'.

HACC clients discussed a range of issues concerning costs and funding, illustrating a range of perspectives on the social contract. Two clients felt AT should be free, that is government-provided, while four agreed that they as the client should be expected to pay. Three felt a subsidy or contribution scheme was fair, and one expected hospitals to pay. Rowena (C3) had been given a pick-up stick and a half step (although she could not recall from where) and commented 'We can't have everything given to us, we get a lot of help in lots of ways' (Rowena C3).

Five clients (or families) self-funded, for example Haresh (C1): 'We bought the pedalling machine, standing frame, and the wheelchair the wheelchair was discounted' (Haresh: C1). In discussing their AT, six of the seven clients viewed the cost of at least some of their AT as 'affordable':

For the rails, I don't mind paying for what I did; it was very cheap, \$10. ... The other aids were affordable. (Betty: C2)

Yes it was affordable, not too bad, one walker was \$150 and the other was less than \$100, I am quite prepared to pay for them. (Mary: C4)

We didn't need a loan. The bike was \$300, the standing frame \$450, less than quoted'.
(Haresh: C1)

Variables such as the availability of loans, and the limitations of pensions, were factors for some clients, although four clients stated no one had discussed costs with them. Don (C5) was one of five clients who had a number of items on permanent loan, which he found financially helpful: 'Yes, we paid \$10 for the walking frame, \$25 for the walker and \$50 for the wheelchair'. Benetta (C7) on the other hand felt she has paid nothing when dwelling in a rural location: 'I am not paying for it, it's not my place ... at Albany hospital (rural) anything you wanted you got'. Yet, now she resides in Perth, she states 'here it's all about the money'. Hannah (C6), however, stated, 'We have had no financial assistance in this regard', and noted that, because she and her husband are on pensions, they have to budget for AT: 'We make it affordable, it's an essential'. Her husband continued this theme, describing needed rails as 'costly' but stating that, if they don't get the funding they feel they are entitled to, they will 'have to find the money to get it' (husband of Hannah: C6).

The findings also reflected a disparity in funding pathways, with the likelihood of any support to loan, purchase or otherwise obtain AT appearing to be the 'luck of the draw' rather than being based on the type of AT or eligibility.

Inadequate support and information

Fourteen RAS assessors (74%) identified the lack of client knowledge and information about both potential AT and suppliers as a major barrier. Lack of information included basic lack of knowledge in regard to even basic devices (for example, eye droppers, pick-up sticks), as well as lack of information about where to purchase or costs and funding involved. The following comment was typical of assessor commentary about client lack of knowledge:

Not knowing where to go. ... It's amazing how many people don't know about pick-up sticks or things like that. ... Clients don't seem to know where to go and a lot of people buy equipment from friends and neighbours for cost and convenience. (RAS assessor)

Only in one instance did the RAS assessor identify the expertise of clients who had already acquired significant knowledge as a result of their longevity of need. Three quarters of all stakeholders also identified lack of information as a problem, stating, 'No one is aware of what is out there and available to them ...' As one stated:

If you don't know this equipment is available then how do you go about accessing it?
(AT Stakeholder)

Lack of knowledge was seen to include both lack of knowledge of AT as well as where to access this equipment.

Similarly, RAS assessors identified a lack of knowledge of and support for AT amongst health professionals. Four RAS assessors (21%) reported a disconnect between the needs of clients regarding AT, and the response from GPs and health professionals, particularly in relation to understanding and supportive follow-up and referral. Examples included: GPs recommending

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

ceasing an activity (for example, walking outside the home) due to health risks (for example, falls) rather than recommend appropriate AT; CAEP funding applications being neglected by GPs; some GPs appearing to have no knowledge of CAEP; and a lack of AT referral and follow up. Similarly, two stakeholders commented on a lack of appropriate knowledge and support from GPs in the area of identifying and supporting access to necessary AT. This was attributed to the busy workloads of GPs, short appointment times, and general inability to look beyond the scope of the immediate presenting issue of the patient. One AT stakeholder and several RAS assessors (n=2) also commented on the lack of knowledge of other health professionals (such as social workers) and other client support personnel. In particular, these personnel were seen to be unaware of the role and links between services, particularly that of HACC and in relation to planning for discharge from hospital.

Two HACC clients specifically mentioned the need for information, with one describing the issue as follows:

Lack of information and knowledge, once you have the knowledge it's easier to get ... not quite sure what is available to us, or is that our ignorance? We are not looking for handouts but we don't know what services are available to us. (Haresh: C1)

Mary and Albert (C4) noted they just happened to find out funding information, which rendered their AT affordable:

Being in the City of Melville you can claim a special fund, if you are a senior with a disability that nobody knows about. I found out about it through the Daily Living Products Catalogue. Once a year you can make a claim on equipment, you buy it then get the GP to sign it off and you only have to pay 10 per cent; \$400 worth of equipment only cost us \$40. Not enough people know about it, there would be plenty of people who would qualify. (Mary: C4)

Interestingly, clients also described limiting or placing boundaries around their information-seeking. Hannah (C6) showed the researcher a handful of brochures, stating, 'TADWA are one of the many we could see', and her husband added, 'Also have info on 'Advocare' whoever they are – no idea – my experience has taught me to go no further than one to two brochures'. Hannah (C6)

All HACC clients described varying journeys to seek out information on what may help. Six of the seven HACC clients reported on experiences related to obtaining their own AT. As Hannah (C6) commented:

We wanted handrails so we went out, like you do with anything, and you have a scratch around and find out who can do it and ring them up! Hannah (C6)

Sources included: 'Phone book for equipment for disabled people' (Hannah: C6); RAS assessor; local shops and advertisements; seniors' information sources such as the 'local pensioners newsletter' (Don: C5); home care agencies; and friends, family and neighbours. One client described going to the GP and obtaining a referral to a community physiotherapist or OT who does the assessment and supplies clients with 'free' AT for all their AT devices

apart from the washing trolley, and noted a difficulty paying if this pathway did not provide: 'I wanted a swivel seat for the car, but I wont get it now the price has gone up from \$19 to \$26' Hannah (C6).

System Complexity

We drifted from Silver Chain to HACC to ILCWA; we thought ILCWA was part of HACC (Haresh: C1)

There seem to be so many. (Rowena: C3)

There are almost too many options – you need a gateway. (Hannah: C6)

It has been noted in a range of policy and AT literature that rationed AT provision and limited program boundaries contribute to system complexity: that is, a range of small schemes, complex 'top-up' or alternative arrangements, and varying interpretations of policies come about in the absence of a comprehensive approach to the actual needs of a community group.¹⁰⁰ The wide range of narrowly defined pathway options for HACC clients uncovered in this research is no exception. As one nurse stated:

The system is so grotesquely complicated that people have no idea how to access it. (Nurse stakeholder)

¹⁰⁰ Summers M. Ripe for reform: aids and equipment policy. Hlth Issues. Summer ed;2011.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Another nurse who was new to Australia commented on her 'product knowledge deficit', saying:

What I have found is it's a bit of a snake pit of navigation. It's been really frustrating and confusing. If someone elderly tried to figure out what to do I don't think it would happen and they would fall through the cracks. (Nurse stakeholder)

A physiotherapist, who practiced in different metropolitan areas, noted it was nearly impossible to learn the various specific pathways for each region:

We just don't have easy links to get someone an aid. It's difficult because we work across the metro area, there are so many places we have to refer people to, so it's a lot of work to try and maintain linkages. ... We need to refer them off to someone, it is having that easy referral pathway. We have a multitude of pathways. ... Our physio's are taking classes in the community, they don't have a telephone or facilities ... they ring us and we ring around. We work in so many areas and it's different for different people. ... You have to work out the best place to send them [clients], then you have to chase up referral forms or if they [a service provider] won't take them and you have to send them back to the GP. We don't have a link to just send them [clients] too. (Physiotherapist).

This point was made in five of the ten stakeholder interviews, and in all focus groups. As discussed previously, four of the seven clients described a lack of information about both AT and providers, and sometimes did not know who had intervened: 'So many people coming to see you, I can only remember Centrelink coming' (Betty: C2).

A further aspect of system complexity is the variability of pathways, dependent on a range of factors including different practices among individuals, gatekeeping practices, and basic lack of personnel. These are discussed below.

Whilst some AT funding pathways exist, gate-keeping to access these was noted amongst stakeholders. For example, the City of Melville Seniors Assistance Fund was described as providing funds for elderly residents living in the community, with funds available for the purchase of AT, which was not funded elsewhere. Clients may be asked to contribute a portion of funding, though stakeholders suggested that full funding might be available. A representative of a specialist neurological visiting service alluded to the role many participants took of 'gatekeeping' or mediating the pathways to which they directed clients, here describing her approach to City of Melville referrals:

I am very wary who I recommend to it; you need to assess who really needs that, but now they have to go to their doctor so we don't have to assess them financially... it's a fantastic program. ... We have even had a couple of occasions where they have actually funded for the OT assessment, private, so if there is a six-month wait list like the CAEP OTs have in Fremantle, then the client has the option to access a private therapist, which means they could get out there literally within the week. (AT stakeholder)

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

As above, stakeholders commented on the lengthy wait times for OTs and the difficulty in accessing OTs in some instances. One CAEP OT discussed a range of criteria that might apply in order for a referral to be made to this service. Evidence of need would need to extend beyond household and domestic tasks and encompass 'larger' issues 'like breathlessness, exercise tolerance, balance' (CAEP OT).

Another theme emerging from focus groups and in several interviews was a critique of the role of the hospital social worker, seen as a key pathway to AT in terms of discharge planning. However, several participants were critical of the effectiveness of this pathway, observing it to make the wrong 'call' on a number of occasions. For example, one social worker had told a client on discharge 'you will need a rail', despite an over toilet frame being in place and adequate. Additionally, one stakeholder commented that clients did not always see a hospital OT for appropriate assessment, as the length of stay in hospital may be too short to enable this, and the client was therefore reliant on the hospital social worker to gap fill in this regard.

AT suppliers were seen to offer a variable pathway to AT, and described as having diverse capabilities, with some merely 'selling products', for example pharmacies, and others having extensive experience, which was sought by referrers, including pharmacies. A number of AT suppliers described their approach as one where they directed would-be customers to either CAEP, or to OT or physiotherapy assessment prior to purchase, particularly for items such as wheelie walkers or wheelchairs: 'If someone walks in we ask "who is it for" to find out what sort of sling (if a hoist) and "who will pay" ...'. It was not clear how effective this was from a consumer perspective and, indeed, AT suppliers noted frequently that family would purchase devices without trialling, and this issue was a major theme in terms of equipment abandonment. One AT supplier stated, 'We are the conduit between prescriber and client', and noted that, as suppliers, they were limited by the medical information the client discloses – a difficult situation when the pathways to allied health support are limited, especially in rural areas.

Pathways were seen as governed by funding context and therefore of variable relevance and accessibility for clients. The GP commented:

Often there are lots of services that have lots of exclusion criteria ... Our patients are real people and the problem is we have all these boxes that our patients don't fit. ... Things don't get funded because everyone thinks the other should fund it. (GP stakeholder)

It was noted that major funders such as DVA, Extended Aged Care at Home Packages and CAEP had different boundaries and criteria, leading to situations where, for example, 'sometimes our patients go to TADWA when it's something that CAEP won't fund'. CAEP staff identified the scope and effectiveness of this state-funding scheme; however, unmet need was evident from the perspective of other stakeholders. CAEP acknowledged they, and very few funders, dealt with 'low cost AT', although an OT working in re-ablement pointed out that 're-ablement does fund, for example, a dressing stick'. Seven stakeholders regarded

certain specialist services as widely supportive of clients needs, noting, 'once the disease has progressed, organisations wrap their arms around the client for whatever the need'.

Lack of soft technology

The HACC client interviews demonstrated uptake of a range of non-complex AT, but also showed that many activities and tasks had been relinquished or significantly altered. This indicates a level of under-met need to some degree on the part of all seven clients interviewed and, probably, within the wider HACC cohort. In other instances, the AT was present but not the soft technology or knowledge about how to use it:

I was given a dressing stick from another patient in hospital but didn't know what it was for until going to the ILCWA and they explained how to use it. (Haresh: C1)

Good practice in provision of AT (see Appendix 2) entails a number of steps. The following steps were distilled for Australia¹⁰¹ from a range of international studies and practice standards.¹⁰² They are intended to apply to AT in its broadest sense, that is, all AT device categories listed in ISO 9999:¹⁰³

- problem identification
- AT assessment with an AT practitioner
- AT trial (across multiple environments of use, adaptation, training)
- AT prescription/recommendation made and application for AT funding
- provision (includes fitting, custom-setup, sign-off)
- review (clinical review and AT performance review)
- AT re-evaluation (needs assessment of consumer; equipment lifecycle).

These steps are discussed below.

Problem identification

The literature indicates that elders are highly likely to have 'unknown, unmet needs' for AT,¹⁰⁴ and this was evidenced in our study. Hannah (C6) could not identify areas of unmet need, yet her husband described a fall out of bed that resulted in three fractured ribs. The interviewer, also an occupational therapist, identified a need for a bedrail to address this issue as well as other gardening-related AT devices, modifications and strategies to address a client-identified issue of decreasing ability to weed the garden due to a bad back and difficulty reaching down.

In another example, Benetta (C7) described her struggles reaching down to get her underwear and trousers on, yet stated this was 'ok' as her husband helped her with it. The client rejected the interviewer's suggestion of a long-handled dressing aid to assist, stating

¹⁰¹ Walker, Layton, Summers, Astbrink. Assistive Technology within the NDIS. Caloundra: ARATA; 2012.

¹⁰² AAATE. Service delivery systems for assistive technology in Europe: position paper. Eastin; 2012. p. 13.

¹⁰³ ISO. Assistive products for persons with disability – classification and terminology. ISO; 2011.

¹⁰⁴ Gramstad A, Storli S L, Hamran T. "Do I need it? Do I really need it?" Elderly peoples' experiences of unmet assistive technology device needs. Dis and Rehab: Assist Techn 2013;8:287-293.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

she had never heard of it and preferred 'to be as independent as possible', relying on the help of her husband instead. This example resonates with data about barriers to access to AT, identifying lack of client knowledge of and familiarity with AT as a contributing factor to unmet need.

This issue is linked with the skill and the lens of the RAS assessor and of other AT stakeholders who are in a position to identify problems that clients and families may not themselves perceive or, if they do, they may not be aware of potential solutions.

AT assessment with an AT practitioner

As described in the section on pathway providers, clients may hold knowledge and competence regarding AT selection, AT suppliers, RAS assessors and other stakeholders. Non-complex AT seen as mainstream was noted to have few contraindications and be easier to recommend, as one RAS assessor comments:

Assessors make judgement calls, for example lightweight vacuums or toaster ovens, where you can't kill yourself but make life easier. (RA4)

In some instances however, AT stakeholders and RAS assessors noted inappropriate provision resulting from clients organising their purchasing without assessment. Several HACC client pathways demonstrated serious repercussions due to the lack of expertise in rail installation. In one example, a family had been advised of the council handyman as a pathway to obtain handrails. As they were unable to get a response, they elected to purchase privately, and this has resulted in two handrails at the front door, too far apart to be used at the same time by one person.

[Daughter of Hannah: C6] We exhausted the funding trail and nobody came; in the end we thought mum and dad will be buried by the time we got the rails, so we put the hat amongst the family ... The handyman sourced them for us, he is from a retirement village, and installed them.

[Interviewer] Who advised you where they should be placed?

[Hannah: C6] The handyman just put them up where he thought they should go.

It appears RAS assessors, as well as many other AT stakeholders, make judgments as to potential risk, device complexity and the disadvantages of entering into a (possibly lengthy) pathway to obtain an OT or other allied health assessment. Drawing this line does not always have clear indicators. In the following example, a RAS assessor has determined for herself those things that require referral:

We are not OTs, simple things like long-handled comb, brush, pick-up stick are fine ... your very simple aids ...we identify *need* not *solution*, unless it's simple, like shower chairs. ... Need an OT for more complex things like TED stockings or a walker. (RA4)

AT trial (across multiple environments of use, adaptation, training)

Three RAS assessors also identified the issue of inappropriate device provision and lack of follow up. One discussed inappropriate equipment (such as a shower stool) provided by the hospital, and the lack of knowledge or reluctance to 'make waves' on the part of the client

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

who did not seek to remedy this situation. Two others discussed insufficient planning, where trolleys were provided without appropriate assessment of the home context they would be used in and, hence, the trolley not fitting the space, or being inappropriate for an environment with steps. Hannah (C6) and her family described significant problems in obtaining a suitable gait aid:

[Daughter] didn't get the four-wheeled walker earlier because when she tried one at the hospital the brakes were too stiff and with her arthritic hands she couldn't manage the brakes, then the other day she saw one at St Ives and she tried it again and the brakes were a bit looser. So if we get that we have hopes she might persevere with it.

[Daughter] Yes the walker they bought in January 2013, hardly used at all, wasn't appropriate in their home and it didn't suit her needs.

[Hannah] Kill myself falling over, hitting people.

[Husband] I have it stored in the garage; it's not used. It's built for hospital use; it's just an aluminium frame with two wheels, not sophisticated and not useful around the house – it's too difficult to use as opposed to the modern day walkers, she manages without as best she can.

Their daughter describes how this resistance has led them to opt out of the system:

We are going out to get the four-wheeled walker ourselves soon, we are not going to wait any longer. We knew it was a waste of time, we abandoned the system, and partly because of Mum's resistance; it's not entirely anyone else's fault, Mum is coming around to it, she has been resisting it.

In terms of other AT needs the family stated, 'Not at the moment but probably will in the future'. An unidentified need related to John's bed mobility (Hannah's husband) : 'He fell out of bed and fractured three ribs'. They receive HACC gardening assistance once every two months through Silver Chain and they are very pleased with that service. John still needs to do the weeding, although he reported doing it less and less because of his bad back, and he can't reach down very well. He didn't have any AT to help him with this.

AT prescription/recommendation made and application for AT funding

Of concern were several examples where pathways had 'stalled' or failed to deliver for clients. For example, Don (C5) found, with the progression of his Parkinson's Disease, that his walking aids only met his needs – 'To a point, I shuffle and it takes me five minutes to get out of the wheelchair. ... At the shops I have my walker but I become frozen and have to get into a wheelchair after a while of walking; helps to have a wheelchair so my wife could push me' (Don: C5). Additionally, Don purchased a \$3000 electric wheelchair but finds it difficult to manoeuvre, with the hand controls being on the wrong side making it difficult for him to navigate around the home. Similarly, the self-purchase of the electric wheelchair does not provide mobility in all the life areas required. Don reports: 'In spring I like to work in the garden, I can use the walker, it's ok I can plonk it outside; the wheelchair is too heavy to lift out, it defeats the point of the exercise'. As a result, his needs are only partially met in these respects.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Hannah (C6) adopted a stoic approach to living without her needed walker. When asked what she could do about the situation she acknowledged her need but could not identify a path forward: 'If I could only get the walker, the walker is a problem ... I don't know, I just have to get used to it [not having it]' (Hannah: C6).

Provision (includes fitting, custom-setup, sign-off)

Lack of follow-up and tailoring altered outcomes. At times, an AT practitioner had assessed for and organised the AT device but not observed its use. For example, Benetta (C7) has a particularly wide bed-lever, which the OT had installed, but she states:

It's useless, I can't get my legs out of bed using it. I got stuck getting out. So I am not using it, I am going to give it back. It doesn't matter, Robby helps. (Benetta: C7)

Clients who had AT that was not in use also indicated a lack of fitting, custom setup and/or sign-off. Mary (C4) observed, 'They suggested a non-slip mat, which I bought and gave it away as it was too hard to keep clean'. Non-use also related to a lack of perceived effectiveness, often due to lack of trial or fitting, for example a bed lever was intended to help Don (C5) with transfers; however, the client reported that 'it's useless'. A reason for non-use appeared to be the failure of pathways, or the personnel involved to 'go the extra mile' and ensure all the steps of a good practice in AT provision had been completed.

Review (clinical review and AT performance review); and AT re-evaluation (needs assessment of consumer; equipment lifecycle).

All clients were noted to have unmet needs or issues, despite receiving annual assessment or reassessment from HACC providers. Hannah (C6), for example, had been provided with a suite of AT during a rehabilitation admission. She was using a walking frame with two front wheels yet had been provided with a walking stick, which she hasn't used as yet due to lack of confidence. She also had an over toilet frame, which she no longer needs. She was making judgements for herself in the absence of follow-up or reassessment: 'The OT sent a trolley to carry things, but that is something else to push and I don't want that, my balance has improved so I can carry things now' (Hannah: C6).

Haresh (C1) had parallel handrails adjacent to a raised toilet seat, as recommended by the RAS assessor who 'must have contacted Royal Perth Hospital because two weeks later they turned up and installed the rails' (Haresh: C1). However, limited turning space in the toilet meant the client was not confident with these transfers and his spouse did not feel safe assisting him to transfer this way. Therefore, Haresh used the wheeled commode/shower seat for over the toilet, and used the parallel bars for his exercises. Haresh, effectively, problem-solved his way through these potential barriers alone.

A theme from all stakeholders was the timeliness of interventions, given the iterative nature of clients' needs. It was suggested that the RAS assessors' annual reassessments need to be mindful of both time passing and of changing capabilities and readiness to address challenges. In the case of Mary (C4), for example, the RAS assessor came 'to assess for a

cleaner, and discussions of handrails were initiated; yet it was 12 months before the client decided to go ahead with the rails, via the reassessment process.'

Changing needs could also be much more a daily occurrence and dependent on context. For example, Don's (C5) spouse observed that, 'Depending on how mobile he is on the day (or time of the day) will depict the type of mobility aid he uses'. The previously outlined mismatch of AT and environmental supports would appear to be a clear situation requiring reassessment based on multiple indicators (lack of mobility, lack of personal safety, depression and immobility), yet had not been identified through RAS assessment to date.

Limitations caused by the provider/assessor lens and knowledge-set

A key learning across the focus groups was the limited lens or perspectives people held through the nature of their roles. For example, the physiotherapists (n-2) identified familiar allied health colleagues (speech pathologists) as the pathways for communication and for eating, drinking and meal preparation devices, and were the only ones to do so.

At times, the presence of multiple pathways across health/disability and ageing appeared to render outcomes more complex, for example Betty (C2) was managed in an acute hospital and then rehabilitation hospital for a pelvic fracture. She did not receive any walking aids following her admission for the removal of her tumour, and felt if she had she quite possibly wouldn't have had the fall and fractured her pelvis. In instances such as this, the service ethos governs the solution a client will be offered.

Similarly, Don (C5) had extensive unmet needs related to his mobility and the lack of tailoring of his wheeled mobility devices and environment. Don was connected to two specialist services: a consultant at the Parkinson's clinic (every four months) and an amputee outpatient clinic. Neither service addressed his current need: Don reported that he no longer attended physiotherapy, having been told there was 'only so much they can do' for him. Recent amputee reviews note that his stump has shrunk but there is 'nothing they can do about it'. While a physiotherapist at the Parkinson's clinic had provided a manual wheelchair and a ramp for the power chair, Don returned these because the manual wheelchair was 'too hard to push' and the ramp was too steep. No further action on the part of these services was underway to remedy the unresolved issues (inappropriately set up power chair, poor AT and environment fit) although they are detrimental to his health and wellbeing.

Many stakeholders recognised their service's limited scope of practice. A home visiting OT from a major hospital commented:

HACC ring asking for shower chair/rail when in fact it's poor manual handling skills. ...
The referring agency say let's patch it up with whatever we are good at. (AT stakeholder)

Another stakeholder commented that clients are often provided with a carer in lieu of AT or re-ablement strategies: 'It's classic – we provide them with a carer as they can't step over the

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

roman bath. We shouldn't talk about AT but how to do *all* of their tasks.' In the case of the Department of Housing (DOH), the pathway appeared more straightforward if a home modification, instead of an AT device, was utilised. The DOH occupational therapist stated:

Look, in most instances a structural item, for example a rail versus an OTF [over toilet frame] in a toilet, in most instances a rail is a better option. ... Sometimes we provide portable ramps but otherwise all fixtures ... shower hoses, flooring (etc.). If they need a portable item, we tell them what their options are: go back to the hospital, go back through the GP, we will get involved [to establish a pathway] as it depends on their ability to do so. (AT stakeholder)

These examples suggest that the AT or home modifications suggested and provided are significantly determined by the lens of the organisation involved, rather than a full and effective assessment of total needs and appropriate solutions.

Related to this are the limitations of a 'tell me' rather than 'show me' approach to assessment. That is, hearing a client describe their capabilities is less useful than watching them move through their home and demonstrate daily tasks. Stakeholders agreed that effective assessment of the needs of HACC clients must entail a 'show me' not 'tell me' approach, and that the key role for RAS assessors and for suppliers, when clients present to them for moderately complex equipment, is to 'screen and refer'. One stakeholder commented that this would change the RAS assessors' responses to the 'I need someone to wash my back' request. In this instance, several OTs commented that solutions do not only include a long-handled sponge, but a transfer bench with shower hose or a shower in the laundry may be the most suitable option; however, such options are only identified by skilled AT practitioners. Participants discussed how 'the person who sees them [clients] most', might identify client needs, but may not be well versed in AT. One OT commented:

I'm not expecting the [RAS] assessor to know which over toilet frame or doughnut – that is clinical reasoning. (OT stakeholder)

There was strong consensus that there is a difference between identifying the problem (the role of the RAS assessor or HACC worker) and identifying a solution. One Aged Care Assessment Team OT commented, 'It takes years to build up the knowledge', noting that for the ACAT population, geriatricians and nurses will refer to OTs rather than make suggestions themselves, bringing into question the scope of practice issue. Interestingly, one quarter of stakeholders felt that it may be better for HACC clients to 'modify what they do' rather than introduce AT, although pathways to knowledge about changing techniques appeared even less clear than pathways to actual devices. Extensive information-sharing occurred across all focus groups and to a lesser extent with interviewees (based on the prompt sheets) about options for doing tasks differently.

Complexity of client health and disability

Exacerbating the need for the specialised and detailed knowledge of AT discussed above, is the need for expertise when dealing with diverse and complex health presentations of HACC clients. Seven of the 19 (37%) RAS assessors discussed the complexities of identifying

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

appropriate AT solutions in situations where other impairments or health conditions made the use of such AT difficult. For example, one assessor discussed a client's inability to both carry objects and handle a walker, due to arthritic hands. Limited dexterity, lack of postural flexibility and memory difficulties all were factors to include in assessment and provision of AT, making this task more complex.

Additionally, health needs changed, which in turn affected the relevance and use of AT. Some health conditions were degenerative and hence offered a likely trajectory of AT abandonment unless re-assessment and provision occurred. Fluctuating health and the progression of time were significant factors for the clients interviewed. All clients described multiple pathways to obtain their suite of supports; many of these had occurred over years or decades previously, particularly in instances where people were living with longstanding disabilities such as amputation or spinal cord injury.

Finally, the capacity of one partner can impact significantly upon the other, as Hannah and John illustrate:

[Hannah] They [walkers] are clumsy, not enough room to turn the damn machine, bang it onto someone else, they are damn nuisances but you've got to have them. If I could only walk the distance without losing my breath, [John] gets impatient and I have to touch him for balance, my balance is hopeless. He has a bad back; we both have to sit down after walking a short while.

[John] The trouble is she pulls me off balance and my back starts playing up.

[Hannah] He's worse than me, he needs one too.

Client perception of AT

A range of client perceptions about themselves, their ageing and AT were identified as barriers to AT provision, particularly by RAS assessors. Fourteen of the nineteen RAS assessors (74%) identified this suite of issues as a barrier to AT provision, along with five stakeholders and one focus group. Assessors discussed clients': desire for privacy, stoicism, denial and pride as reasons for non-disclosure of need in relation to AT. For some clients, discussion of personal issues (particularly incontinence) is deeply personal and embarrassing, particularly when the HACC assessment may be the first time this has been discussed and where clients have not had previous contact with the health system to discuss such issues. For some clients, AT need was less visible to them because they had simply relinquished activities and tasks when they became too difficult, or utilised other strategies (such as holding the furniture to walk) rather than admit to having a need. Clients were described as 'stuck in their ways', comfortable with old habits or 'struggling on' rather than facing change, even if change was required for safety reasons. As one pharmacist described it:

They deny needing anything – admitting they need help would be hard; there are lots of people fumbling along until something happens, then something gets put in place and it could have been prevented, something as simple as a rail in the house.

(Pharmacy stakeholder)

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Stigma was cited as a major cause of reluctance to utilise AT, and described by three RAS assessors as follows:

A lot of people don't want rails as they look disabled. (RAS assessor).

A lot of people won't have AT because it's a sign 'I am getting older'. (RAS assessor)

A lot of clients don't want to use built up handles on utensils as it makes them look different. ... Anything from a department store is quite mainstream and they look normal, people are happy with it. (RAS assessor)

One stakeholder also discussed this issue and noted that the provision of AT can make a person 'feel like an invalid'. To combat this, one nurse suggested that AT needs updating: 'The trolleys need to be more modern not stereotyping that age. ...Trolleys that have two wheels not four are seen as more modern'. This commentary speaks to the value of universal design and the role of 'mass market' goods and provision through generic providers, though the issues of providing adequate assessment and AT knowledge in this context has been discussed above. Overall, AT was reported by assessors and stakeholders as often being equated by clients with a loss of independence rather than a supporting of it. The role of client attitude and willingness to engage with AT cannot be understated.

Ingredients of effective pathways

All participant groups were asked to suggest ideas to improve access to and efficiency of AT pathways. These suggestions are collated below.

Ideas for improvement from HACC client perspective

Key ingredients of pathway effectiveness discussed by HACC clients included:

- a one-step process (assessment leads directly to provision)
- prompt provision with no waiting time or need to answer questions
- information, advice and advocacy throughout the process.

One-step process (assessment leads directly to provision)

HACC clients sought pathways that would deliver the needed outcome seamlessly and with few steps. Most pathways however require referral or contact to be made with a separate entity. From the perspective of the RAS assessor or other AT providers this may appear straightforward, but for many clients the suggested pathway represented yet another set of information and, overall, client recall regarding pathway details was poor. A far preferable option from the perspective of HACC clients was for the service provider to take whatever steps necessary to deliver the non-complex AT, as in the case of Betty who reported her long-handled dustpan was bought by the lady at Silver Chain – 'It didn't cost much' – and Betty reimbursed her. Similarly, Mary and Albert just knew that the assessor had arranged it (handrail at front door). The assessor had left a brochure about the rail and had written on the brochure that TADWA would be supplying and installing the rail. Likewise, mail order purchases were seen as easy, as Rowena described: 'Lid opener – got that through Penny Millar, got lots of things from there, for example leg warmers, prickly shoes, normally get from the chemist (has prickly inner sole). Penny Millar has a booklet that gets delivered to households, purchases get dropped off and you pay for them at your door, very convenient, they have lots of aids and equipment' (Rowena:C3). While clients greatly valued the ILCWA as a source of advice and information, a key criticism was that items could not be purchased there, and hence the immediacy of supply they required was not achieved.

Prompt provision with no waiting time or need to answer questions

For clients, ease of access also meant a prompt purchase without having to answer questions. At times, such hurdles of pathways discouraged their use; for example, regarding the Continence Aids Assistance Scheme (CAAS) one participant commented on the extensive use of pharmacy: 'Most clients don't access the scheme, feel they ask too many questions, they just want to be sold a pad'.

Naturally, clients valued immediacy of provision, with no or only small waiting periods. Provision should also include the opportunity to trial the device in the home environment (rather than a hospital environment or shop floor) to assess its suitability in this context. At times, a pathway was appropriate yet not efficient in relation to timeframes of provision. In these instances, HACC clients struggled to obtain an outcome and the RAS assessor would be

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

unaware of this until the next annual review. Five of the seven clients had experienced a general lack of follow-up or co-ordination from various pathways. Clients generally reported instances of significant wait times, as discussed above.

Information, advice and advocacy throughout the process

To support clients through such complex systems, three clients and families suggested the role of a client advocate or advisory service. As described by one family member:

There should be an advocate, someone to check on them. I am sure that such an inefficient process could be tightened up. One person coming here once would have saved eight months. (Family member of client)

Similarly, another client suggested an advisory service to work with clients and families, especially prior to discharge from hospital. Linked to this is the need for more information, provided not only to the client, but also between service providers highlighting the role of the ILCWA to the client and facilitating such links.

Ideas for improvement from a RAS assessor perspective

Key areas for improvement from a RAS assessor perspective included:

- expanding the reach of and access to the ILCWA for HACC clients
- expanding the AT knowledge of RAS assessors and strengthening their role in facilitating AT provision
- increasing information about AT to HACC population
- maximising the potential of existing pathways to AT.

These are discussed below.

Expanding the reach of and access to the ILCWA

RAS assessors had a range of suggestions for improving the reach of and access to the ILCWA, which they valued as an important resource for both themselves and clients. First, one RAS assessor commented on the need for the ILCWA to extend its advertising or publicity in ways that suit the HACC (older population) client group. In particular, the assessor commented:

ILCWA website and brochures are not being distributed to the HACC client group very well. If they did a mail drop they would be better known. Older generations differ, if they have a question they ask a friend rather than Google it, therefore they are limited, or they might ask their GP or a friend. (RAS assessor)

Four RAS assessors commented on the need for strategies to make access to the ILCWA easier for HACC clients. Several suggested providing help with transport to the ILCWA. One RAS assessor believed (incorrectly) the ILCWA offers a home visit service if the client is unable to get to the ILCWA, and thought RAS assessors needed to make more use of this. A second RAS assessor suggested a mobile van stocked with a range of AT to bring the ILCWA to the client.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Expanding the AT knowledge of RAS assessors and strengthening their role in facilitating AT provision

Three assessors suggested ways to better inform and resource RAS assessors in regard to AT. One suggested the value of portable internet technology such as iPads (not currently supplied to RAS assessors), which would be an important resource for client visits (to search for AT and show to clients). Another suggested the development of an information manual, and sharing between RAS assessors and teams, possibly via nominated personnel who took the role of AT 'champions'. A third suggested increasing the listing of and information about AT on the WAAF, which is a key HACC WA resource.

Two RAS assessors made suggestions focused on facilitating more directly the HACC client's access to AT prescribers, funders and provision. One assessor suggested that RAS assessors could be supplied with a set of basic AT that could be directly supplied to clients as needed. Another focused on the development of more formal and direct referral systems from RAS assessors to either OTs and physiotherapists, or to CAEP and Department of Veterans Affairs (DVA) to streamline and secure the process for clients.

Increasing information about AT to HACC population

Four assessors provided suggestions about ways to make the HACC population better informed about AT, funding and provision. One echoed the suggestion provided by the GP stakeholder, to target social gatherings of older aged people and provide information at these. Three others suggested developing specific resources, such as flyers, that provided summaries of equipment, providers, ballpark costs and funding schemes.

Maximising the potential of existing pathways to AT

The general thrust of commentary was to improve the range of options for AT supply, including its affordability. Assessors offered a range of suggestions. These included suggesting that pharmacists expand their information provider role in relation to AT, and be pro-active in informing older people about AT (for example, through flyers placed with collected prescriptions and other purchases). Increasing access to AT via increasing services such as TADWA, home visits, and direct linkages between HACC and ILCWA were also canvassed. Additionally, one assessor discussed the need to expand the role of all health professionals and suppliers who interact with clients, commenting that health professionals from other areas (such as post-hospital discharge support) should also support identification of AT needs and provision, instead of an overly narrow focus on the single post-discharge related issue. Collectively, these individual responses focused on a better utilisation of existing pathways and supports in terms of maximising their potential to support identification of and access to needed AT. In tandem with these ideas, two assessors also commented on the importance of fostering client responsibility in accessing AT.

Overall, assessors called for a clear, comprehensive and updated information source, suggesting this could be used alongside the ILCWA database to be accessible at point of assessment in the client's home.

Ideas for improvement from an AT stakeholder perspective

Key areas for improvement from stakeholder perspective echoed many of the ideas raised by HACC clients and RAS assessors. They included:

- expanding the reach and access to the ILCWA for HACC clients
- increasing information about AT to all pathways and HACC population
- maximising the potential of existing pathways to AT
- recognising diverse personnel as AT practitioners and AT suppliers.

These are discussed below.

Expanding the reach of and access to the ILCWA

Five stakeholders focused on the need to expand the accessibility of the ILCWA. Two stakeholders suggested the possibility of the ILCWA having community 'hubs', possibly connected to Medicare Locals and allied health services associated with these. Such 'hubs' would overcome some of the client transport issues, and could take on a role in assessment, as well as re-assessment of AT (where people's needs have changed and existing AT needs modifying or changing). Another stakeholder suggested piggybacking onto community events and expanding community information sessions. A different stakeholder focused on the need to promote the ILCWA through business cards.

The notion of the ILCWA developing as a 'one stop shop' was proposed by two stakeholders, who identified the need for clients to be able to both trial as well as order and receive equipment via the ILCWA. One suggested that the venue could be enhanced as a desirable place to go for seniors, with a coffee shop and pleasant environment where seniors could comfortably spend time and observe favoured activities such as gardening and related AT: a 'fun event'. Although the ILCWA has Skype as an option for off-site connection to its services, no stakeholders or clients mentioned this service, despite its potential usefulness.

Increasing information about AT to all pathways and HACC population

Stakeholders had many suggestions to increase information provision with a strong focus on informing health professionals (including GPs), and a lesser focus on informing HACC clients.

A main cluster of focus for stakeholders was in relation to expanding and updating the AT knowledge of GPs and their clinic staff. Four stakeholders had suggestions in this regard. This included two suggesting encouraging GPs to visit the ILCWA and attend information and training sessions by the ILCWA. A practice nurse identified the need for such workshops and training, and suggested linking these to continuing professional development points for GPs and nurses, organised through Medicare Locals. Another suggested attending GP conferences with information stalls and resources, and posting information in GP clinics (with stakeholders agreeing not to focus strategies on directly engaging with GPs in their clinics due to their workload). Finally, one stakeholder endorsed the importance of a focus on GP practice nurses as the main personnel involved in aged assessments. One practice nurse confirmed:

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Nurses are often the first point of contact and are going to be the ones that initiate anything with the GP's. Concise information is important. ... I would like to see a presentation at my workplace, I feel at a loss. I would like to know more about the services out there and about RAS in a concise way. (AT stakeholder)

This stakeholder suggested that while GPs may not attend information sessions held within the clinic, nurses routinely attend these, often held in lunchtimes by other stakeholders (such as pharmaceutical companies).

Several stakeholders also commented on the need for the distribution of more information in the form of pamphlets, information kiosks, and flyers. One nurse, however, suggested:

You need a concise directory rather than a whole lot of brochures, of all services short and sweet about what they do to get the ball rolling with referrals etc. I would feel like I was doing my job better. (AT stakeholder)

On this theme, two stakeholders requested a database or website that provided a comprehensive listing of funding options, as well as providers (able to be searched by postcode or geographic region). Such a resource was seen to have value for health professionals as well as HACC clients. A third stakeholder suggested a central phone number as a one stop shop for such information, as follows:

A metro-wide number or linking in with Carelink, one person keeping all the information up to date, single point of reference, etc., instead of everyone in the community trying to keep up to date, like when you ring Health Direct. ILCWA would be fantastic to keep the project up to date, know what funding is available, then you could have a one stop shop. Commonwealth Carelink has a database for other stuff, you could do it through there. (AT stakeholder)

Finally, as in the RAS assessor group, one stakeholder suggested better targeting information provision sessions to community facilities and groups. One nurse suggested offering sessions at –

... centres, rest homes, give tips, with an OT or the like. Inform all, not just aimed at one person; make it fun, informal presentation, so they didn't see it as a threat but to enhance their independence. Some techniques the elderly just can't do, for example changing bed sheets, use a duvet instead ... presentations to retirement villages or groups, rotary etc., using the approach of teaching the trainer and teaching the people who are in the same age group – that would reduce the threat and lighten the load on government departments. (Nurse stakeholder)

Maximising the potential of existing pathways to AT

Several stakeholders suggested ways to improve or maximise the potential of existing pathways to AT. One stakeholder focused on ways to increase the skills and knowledge of pharmacists, suggesting access to training for pharmacists and assistants 'to help with assessments'. Another suggested that pharmacies expand their role into the provision of 'community care', as follows:

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

We need to look at where we can help the community in areas where we don't normally, and turn pharmacies from just medical supply stations into actual community care, where we can actually make a difference, where we can align our business and build a business model outside of the supply of just medications. (AT stakeholder)

A third stakeholder suggested incorporating Occupational Therapists in GP 'super clinics' to undertake the role of assessment and support regarding AT needs.

Two stakeholders focused on the need to expand the supply and provision of AT, including both more generic and 'specialist' suppliers like TADWA. As one commented:

Obviously, the more areas that are available the more retailers and stores doing it the better, simple availability. (AT stakeholder)

Finally, two stakeholders identified the need for better follow up in regard to AT needs and provision, both after discharge from hospital (including both short- and long-term follow up), as well as by RAS assessors to determine whether recommended AT was accessed, and to support this process.

Recognising diverse personnel as AT practitioners and AT suppliers

As can be seen from the discussion of the role of AT practitioners in an earlier section of the Report, non-complex AT and related techniques are frequently well addressed by a diversity of stakeholders, yet these stakeholders may remain reluctant to promote their expertise in this regard. Also, while substantial tacit knowledge is present across AT stakeholders, this may not ensure either a comprehensive knowledge base or relevant clinical governance among AT stakeholders. Notwithstanding these issues, the stakeholder cohort agreed that a broad range of personnel should undertake the role of AT advice and provision, as discussed below.

Familiarity rather than specialist skill was a theme commented upon by half of the stakeholder cohort. The following comment by the GP encapsulates the view many stakeholders had regarding whose 'scope of practice' the range of AT fell into:

In terms of the detail of the exact type of aid it would be physios and OT's, although there would be lots of people in health care who would be involved in recommending. (GP)

Not a specialist thing, all health professionals should know how to do that. ... If everyone knew about those things then everyone should be able to. There is also the other really large group and that is the pharmacists. (AT stakeholder)

In terms of the impact of non-expertly provided equipment, a range of comments was made:

It's common sense ... look, sometimes you see 4ww [four wheel walker] or SPS [single point stick] and you think, that looks very high, but at the end of the day they have been using it for years and it's made a huge difference to their life. (AT stakeholder)

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

[Re visual impairment service LIND]: We had a lot of clients buying wrong magnifiers, so now we have a shop and the optometrists do the assessment before they buy a magnifier. (Stakeholder)

So many people come in and say 'look, I bought this at the chemist but it's not right, [chorus of agreement from others in focus group] and it's broken, and the chemist doesn't want to know about it, or Harvey Norman', that's because of a lack of knowledge. (AT stakeholder)

Stakeholders from a professional background in medical areas tended to suggest prescriptive measures in accessing AT. In discussing who is responsible for advising on AT, one nurse, for example, suggested the following professionals for various AT areas:

Physio-level qualification, they would be able to make adjustments on what the doctor recommended during their rehab. ... [On mobility]: They would need to be patient-educator trained; any nurses working with a patient who was institutionalised, who was having difficulty getting in and out of bed, balance or mobility issues – that's how it happens in the USA. ... [On Continence]: Don't have to have a referral; you might need knowledge, for example definitely need an RTS [raised toilet seat] post-TKR [total knee replacement] from a physio or a post surgical requirement from the specialist. ... [On continence]: Some sort of patient care assistant or services like that. ... [On communication]: Family or GP referral. Depending on, for example, prognosis, post-stroke, health care planning, education, not sure who does that. ... [On Housework]: Physio or rehabilitation services. ... [On shopping and vehicle]: Physio, rehab educator. [On AT assessment]: Should be OT's or someone with some special needs education, occupational health or occupational and disability training. (Nurse stakeholder)

A registered nurse commented on skills for recommending personal care devices:

You don't necessarily need a referral for it, but there probably needs to be some sort of education process for people to be aware of what is available [from someone with] either some sort of occupational training or health background, physio, or nursing background or someone knowledgeable of the physical limitations that people are dealing with and they need an understanding of the mechanics of weight transfer or training specific, ... not necessary have a degree or speciality, maybe more of a certification so you have a general basic knowledge of the occupational hazards and what you can do to improve quality of life. (Nurse stakeholder).

Section 4: Implications and recommendations

Set in WA in the HACC context, this research project asked: How can aids and equipment be most effectively assessed, accessed, funded and used? Four research questions framed this inquiry:

- What items are, or should be, included in an understanding of 'non-complex assistive technology' that is commonly identified for, or useful to, HACC clients in WA?
- What pathways are RAS assessors in WA currently using to refer HACC clients to non-complex assistive technology?
- What is the effectiveness of current pathways of access and funding to non-complex equipment for HACC clients in WA?
- How could the access to and funding of non-complex assistive technology for WA HACC clients be improved?

Data and literature have been synthesised to answer these questions as follows:

1. What items are, or should be, included in an understanding of 'non-complex AT' that is commonly identified for, or useful to, HACC clients in WA?

The literature review illustrated the wide range of products, services and strategies that are effective, and can be considered 'within scope'. Resulting from this, the following definition is recommended for non-complex AT:

Non-complex AT refers to products that augment daily living activities, usually in the home. Non-complex AT may be low technology, low cost and include everyday technologies. The common feature of non-complex AT is that AT users can readily identify and trial devices, and ascertain their likely value based on their daily experience.¹⁰⁵

¹⁰⁵ Developed by N Layton in relation to definitions of complex AT for NDIS 2013.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Table 8 Non-complex AT and related strategies for HACC population

Area of daily living	Example devices	
Self-care activities		
Walking, transferring and mobility	Walking sticks Wheelie walkers Slide pads and transfer discs	Manual wheelchair Chair raisers Threshold ramps
Showering, grooming, dressing and clothing	Handshowers Handrails Shower stools Buttonhooks Long-handled toe washers	Shoe horns and shoe doffers Dressing sticks Long-handled combs Tap turners Long-handled sponges
Toileting and continence	Over toilet frames Toilet raisers	Kylie sheets Reusable continence wear
Eating, drinking and meal preparation	Adapted crockery and cutlery Non-slip kitchenware Ergonomic knives	Kitchen trolleys One-handed breadboards Two handled cups
Medication management	Dossette boxes Pill splitters	Eye drop dispensers Medication timers
Communication: writing, reading, hearing, telephoning, emergency call systems, managing money	Communication cards Magnifying glasses Universal remote control	Adapted pen grips Personal alarms GPS and reminder systems Modified headphones for TV
Housework activities		
Vacuuming, sweeping/mopping, cleaning the bath or shower, dusting, making beds, clothes washing, ironing, drying the washing	Lightweight mops and brooms Lightweight or automatic vacuum cleaners Microfibre cleaning mitts Adapted bed-making techniques Wheeled laundry trolley	Furniture raisers (to enable cleaning) Adapted mop bucket Lightweight iron Adapted pegs Pull-out washing line or clothes horse
Community access		
Transferring into or out of cars/vehicles, shopping and unpacking	Wheeled shopping trolleys Methods to load shopping Methods to push trolleys	Swivel disc for car seat Handle adaptation for car transfers
Recreation		
Maintaining the garden	Adapted/lightweight gardening tools Long-handled weeder	Raised beds Garden kneeler
Leisure pursuits	Tailored information and communication technology Embroidery hoop, needle-threader	Accessible board games Wii Bookstands

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Work simplification and energy conservation principles	
Principles of work simplification	How to do things more easily Doing the activity in the most efficient and safe way Using suitable work heights Storing items for frequency of use
Principles of energy conservation	For example, work/rest routines

Study data proved that the range of AT and strategies informed by the Equipment and Resource Guide¹⁰⁶ is a good representation of AT 'in scope' for this cohort and group of stakeholders. It is clear that this range of AT is of great relevance to HACC clients and falls within the scope of assessment and advice provided by RAS assessors.

Recommendation 1.1

That identification of need for and advice about the provision of non-complex AT (as defined here) be explicitly recognised and resourced as part of the HACC Regional Assessment Service role.

2. What pathways are RAS assessors in WA currently using to refer HACC clients to non-complex AT?

Pathways to non-complex AT for HACC clients are multiple, diverse, uncoordinated and poorly understood. Overall, RAS assessors identified 109 separate pathways to obtain AT for HACC clients. Of these, the most frequently mentioned was that of the ILCWA, being identified as a pathway in all AT categories. No other pathway was identified as being a valued pathway across every life area, though the pathway of GP was also highly identified across all but one life area, with TADWA also mentioned frequently in many life areas. In general, pathways were understood to include both AT specialists (such as the ILCWA and TADWA, along with other disability specific agencies), as well as non-AT specialists such pharmacists and Bunnings, RAS assessors, and health professionals including GPs, nurses, and allied health practitioners, among others. RAS assessors identified pathways in relation to each life or activity area, and while the areas of mobility and recreation offered the highest number of pathways to relevant AT (69 each), and communication also provided a high number of pathways to navigate (63), there were more than 30 pathways in every life area requiring AT support. It is noteworthy that a number of 'pathways' such as ILCWA are in fact pathway 'steps' as they do not result directly in provision of AT (ILCWA clients receive 'soft technology' advice from their ILCWA encounter but then must engage with AT suppliers or other AT stakeholders as recommended by the ILCWA, to attain the device).

¹⁰⁶ CommunityWest. Wellness approach to community home care: equipment and resource guide. Perth: HACC and CommunityWest; 2007.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

While some pathways were mentioned by all interviewees (for example CAEP, ILCWA, pharmacy, GP, Bunnings, TADWA), many were known to just a few. It appears that, for clients, the pathways offered to them depends on the level of experience, confidence and the training of the RAS assessor. Some regional differences were anticipated, but were not strongly identified in the data. Not being close to the ILCWA or living in an area without local government area (LGA) funding of AT did impact upon the pathway options, but overall such regional differences appeared far less significant than the skill and knowledge of the RAS assessor.

The RAS assessor is seen as a key pathway to non-complex AT by this group, other stakeholders and clients. However, RAS assessors, in the main, appear to be allocated insufficient time and resources to undertake this role effectively, especially given the finding, noted by the majority of research participants, regarding the need for additional support and follow up to assist HACC clients. Good practice principles in any AT prescription process acknowledge the adjustment-sensitive nature of any intervention for this population, and the cycle of collaboration/problem-solving/revisiting necessary for effective intervention; however, RAS assessors appear to have insufficient time for this approach. In addition, RAS assessors, with some exceptions, appear to lack sufficient knowledge about AT assessment and pathways, as do many other AT stakeholders within other pathways.

Recommendation 2.1

That stakeholders are provided with a single, accessible information resource that effectively directs and maps pathways suitable for HACC clients'

3. What is the effectiveness of current pathways of access and funding to non-complex equipment for HACC clients in WA?

Firstly we present a brief commentary on the role of the West Australian Assessment Framework (WAAF) as elicited through the study data. The WAAF objectives are to:

- i. Provide an identifiable point of entry into the community care system that supports the client/carer with clear, accurate and relevant information and referral to appropriate assessment and/or services to address identified needs.
- ii. Conduct or refer to appropriate assessments and provide targeted and responsive service delivery to support the client/carer to maintain and improve their wellbeing and independence.
- iii. Ensure the client/carer journey in the community care system is supported by effective communication and cooperation between all parts of the system and the client/carer is at the centre of the decision-making.
- iv. Improve the collection and exchange of client/carer information to prevent duplication.¹⁰⁷

¹⁰⁷ WA HACC manual. Perth: Department of Health; 2013. p. 17.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

In terms of delivering on WAAF objectives, the study data provided the following indicators:

i. Firstly, AT practitioners and stakeholders within the disability and aged-care systems largely appreciated the comprehensive role of the WAAF and felt it to be positive, although a number of stakeholders such as GP and pharmacy were not familiar with the WAAF or indeed RAS.

ii. Secondly, philosophies such as wellness and, to a lesser extent, re-ablement, appear well embedded within the WAAF and understood by a range of AT stakeholders. A tension was noted between the dual tasks of 'ascertaining need' and 'identifying solutions'. In some instances, highly skilled RAS assessors appeared to devalue their skillset and seek out AT practitioners to refer to. On other occasions, RAS assessors presented a 'bounded' view of their roles, in which they were prepared to refer on to known pathways but did not demonstrate ongoing learning or seeking out of additional solutions based on client need. For HACC clients, it appears many are supported in obtaining pathways to meet at least some of their multiple AT needs.

RAS assessors recommended AT for three of the seven HACC clients researched; however, four clients did not receive any recommendations. Across the HACC client group, the occupational therapy researcher noted six instances of unmet need for AT and six unresolved issues or barriers, with another four issues requiring follow-up. In six instances then, unmet or under-met needs were missed or, if they had occurred between HACC assessments, remained unresolved. HACC clients for whom these gaps occurred demonstrated a decrease in wellbeing and independence due to participation restrictions.

iii. Delivering client choice and control is a relatively new challenge for Australian services, yet is a key aspect of the WAAF. RAS assessors all articulated the philosophy of choice and control, but realised this in different ways. For some, the enacting control meant the HACC client needed to take some responsibility for engaging with pathways, for example they focussed on providing the contact details for a particular pathway:

With the wellness approach it is about clients doing as much for themselves, that is why getting pamphlets etc. is good, and we can do the referrals. (RA17)

Doing it themselves instead of me doing it. Self-referral is self-empowerment ... we empower them to do the referral themselves. (RA19)

An example of a combination of autonomy and RAS direction is given by Mary (C4,) whose RAS assessor recommended the rail at the front door to the client on her initial visit, to help her up a rise leading to her front door, especially when carrying groceries. At the time, Mary had friends who went with her and carried the shopping. Since then they have left and she has to carry the groceries herself and finds it difficult. She contacted the RAS assessor and requested what had been originally suggested. In terms of deciding on a pathway for installation, the RAS assessor told her, 'Some rails you have to pay for and some you don't'. The RAS assessor referred directly to TADWA: in this instance, the client appears not to have been given a choice of who would provide the rail. This level of organisation was appreciated, as Mary commented: 'Didn't have to identify the place, it was all done for me, they just turned up with the rails and installed them two weeks after the assessment' (Mary: C4).

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Eleven RAS assessors noted the disadvantage of not knowing whether the pathways suggested were effective:

I don't find out about outcomes, unless I call the client for something else, or the following year when we go out for reassessment. If we send out a referral we get an acceptance letter, then file it and forget about it, otherwise refer to it the following year. (RA7)

While this may be in keeping with empowering HACC clients, RAS assessors noted this inability to follow up at times results in unmet needs:

Most people say 'yes I will look into that'; back a year later and they often haven't. ... Once we have done the assessment and the referral our role is finished; the service provider takes over and because they are going in usually every day or three to four times a week for personal cares they should also be identifying what these clients need. (RA13)

Workload was a constraint on the capacity to follow up, with six RAS assessors describing time-consuming follow up, 'If you get a complex one, everything gets thrown out, can't keep up with all the paperwork, I just don't have the time to do any follow up' (RA9). 'The time taken to follow through from a referral: I put one in for a ramp and the client rang several times, it was addressed but it is very time consuming' (RA17).

We try to promote a wellness approach and encourage them to contact the ILCWA rather than us doing it. There is a lack of knowledge, we don't know if a client has followed up on a recommendation. We don't know until the following year and we see the equipment in place, some do get it but most don't. I always follow up then [one year later]. (RA17)

Others described collaboration with the HACC client about potential solutions along with a careful assessment of their capacities. In some instances, this led to the RAS assessor assisting in making contact or referral to particular pathways, or, in fact, working to make sure the AT device actually got purchased and delivered, as that is what the client needed:

Getting the client to go back to the GP, sometimes I complete the paperwork for community aids and equipment for the GP in order for them to order an in-home assessment.

[Continence] CMAS – I just ring up then and there, as they do home visits depending on the client I either organise the clinic or the home visit.

[Personal alarms] I send them or their family a link via email where to purchase them [or] print off and post information.

[Communication] Lots of choices out there, usually print off a list and send them to the family.

[Leisure] I would email or send information; second-hand equipment through Gumtree and Quokka.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Advise they talk to their GP (I will do on client's behalf if necessary.) If they have had an ACAT assessment I will call them and make a recommendation for the equipment they need. (RA19)

In a number of instances pathways failed to deliver needed supports, so providing contact information was not enough to deliver an outcome. RAS assessors spoke of workload pressures and the inability to spend time checking the outcome of pathways. Given the complexity of need across even the small sample of HACC clients researched for this study, it would appear that, while empowering clients with information to follow up is an appropriate starting point, for many additional support is required to ensure a solution is arrived at.

Recommendation 3.1

That a critical analysis be conducted of the pathways identified in this study, from a funding and policy perspective. This may provide direction in streamlining and linking the range of current pathways available, and would include an evaluation of the 'extent' of pathways against best-practice principles, as many pathways (RAS, ILCWA) are in fact pathway 'steps' and do not of themselves provide end-point AT solutions.

Recommendation 3.2

The RAS assessor role can be viewed as an AT pathway in itself. Therefore, the following model is suggested to embed a systematic approach to non-complex AT management, and related AT competency:

Identify –	AT needs
Inform –	About AT devices/strategies About further AT assessment if required About referral requirement/processes About providers
Link –	About costs and funding sources To online and other information to show client device options To ILCWA for trial, preview and advice To GP, practice nurses, OT etc. To other providers
Support –	To funder information and requirements Provision Follow-up and problem solve supply Fitting, modification and training in use of AT

4. How could the access to and funding of non-complex assistive technology for WA HACC clients be improved?

AT Competence

Clearly, a range of AT stakeholders in WA are engaged in identifying need, assessing what category of non-complex AT or related strategies may be required, and ascertaining pathways. This observation raises both 'scope of practice' issues for allied health staff and administrative challenges for services in the way AT need is identified and AT devices are provided. It also opens up a potential enhancement of the role and efficacy of the HACC worker and other ancillary staff, and the real possibility that HACC clients could gain access to needed AT in a more seamless and effective way.

Firstly, as described in the literature review, a range of competency standards (see Appendix 2) provide a starting point for delineating the expertise or 'soft technology' skills required to holistically assess, determine need, arrange non-complex AT support and to appropriately refer to allied health when specialist AT skill is required.

Secondly, processes for developing identified competency elements (for instance, attitude, knowledge and skills) have emerged from the data. These include a focus on skills and knowledge enhancement of all RAS assessors, and a focus on professional development of other pathway personnel, particularly GPs and nurses, and pharmacists. Key strategies for RAS include access to ILCWA workshops, team training and information champions. Strategies for other AT stakeholders also include links to ILCWA training, but coupled with the continuing professional development requirements of, for example, GPs and nurses.

Increased information provision

Information is key to understanding the strategies that can enable outcomes, to identifying those strategies and devices, and to locating pathways to them. Ideas to inform include:

- a comprehensive approach to informing pathway personnel (especially health professionals such as GPs and practice nurses, and RAS)
- informing clients, for example via community education strategies in local venues utilised by the aged population
- responding to the need for a single, accessible information resource that maps pathways.

There is a significant potential role here for the ILCWA given its information mandate, particularly as ILCWA is already demonstrably the best-known pathway.

Streamlining of pathways

The range of pathways uncovered requires critical examination from a policy perspective to determine the pathways' calibre and any duplication or gaps. Clients are experiencing multiple paths in order to get their needs met. It is not the case currently that any one pathway can meet all needs, although some pathways could potentially be merged or delivered in closer relation to each other. There was, however, consensus among

stakeholders that the client journey could be better supported if each AT provider or pathway were well informed about additional options and pathways. Clients needed to have their issues addressed holistically, and asked for immediacy of provision and the merging of assessment, advice and provision where possible. While the value of impartial information sources was perceived by some HACC clients, especially in relation to comments on the need for an advocate or for independent advice beyond that of a 'shopkeeper', the difficulty of obtaining needed devices did raise the perceived value of a 'one stop shop' for non-complex AT.

Partnerships

Other than the strong roles of the ILCWA and TADWA, no one information source was paramount yet the majority of stakeholders described building and working on certain partnerships, which helped them navigate the maze of pathways and provide HACC clients with tangible options. These partnerships might be with GPs, trusted AT suppliers, occupational therapists, or within RAS teams. Partnerships were seen as solutions to the plethora of choices and lack of complete knowledge on the part of any one stakeholder. One OT stated, 'We ask the GP to monitor if people change, for example once you have a scooter OT in WA, if you know about the system, it works really well'. Being partners or players within larger structures, if they were understood, was also deemed valuable; for example an OT commented, 'The CAEP funding is for people over 65, all covered from HACC. Disability services cover birth to 65. It's a very well thought out program, was done well when it was set up' (OT stakeholder). This bodes well for future alignment of pathways and services as many stakeholders described interest and willingness in gaining knowledge of and relationships with useful partners.

Recommendation 4.1

That access to funding of non complex AT involves:

- articulating competence (specifically soft technology)
- targeting and extending information provision across the sector, particularly to groups demonstrated to be information-poor
- streamlining pathways where possible to simplify the system
- engaging in partnerships to strengthen knowledge transfer and cross referral.

Conclusion

Assistive technologies are vital and effective supports to daily life and the achievement of personal outcomes. AT ranges from everyday devices to specialist disability products, and is integrally related to structural adaptations (such as ramps and handrails). Human behaviour is also related to the need for, and effectiveness of, AT; for example, work simplification and energy conservation strategies are needed to maximise the benefit of a propping stool. AT that was previously considered 'high cost', 'complex' or 'high technology' is becoming mainstream (for example, GPS devices; lightweight powered vacuum cleaners; information and communication technologies (ICT)). Some 'complex' AT is becoming 'low cost' (some

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

pressure cushions and scooters). In future, service delivery is likely to entail coordinated delivery of related aspects of AT such as everyday technologies (telephones, home appliances), and telehealth (ICT applied to the management of health issues). Effectiveness of AT and related strategies or modifications depends upon the quality of fit with the person and their tasks and environments. Effectiveness is not necessarily related to complexity: that is, non-complex devices are as effective as more specialised devices in terms of achieving outcomes if it matches the person's needs and environment. A range of evidence demonstrated the effectiveness of non-complex AT devices and related strategies, and also demonstrated the critical importance of timely provision.

WA HACC provides a wide range of valued services to West Australians, and recent service improvement principles (wellness, re-ablement) and service delivery mechanisms (WAAF, the regional assessment service) have brought about a more comprehensive and equitable assessment approach. AT and EI, as well as related strategies and techniques, are recognised by WAAF as useful tools to achieve wellness and independence outcomes, and RAS assessors demonstrated a sense of responsibility for linking clients to pathways that will deliver such supports.

There is a plethora of pathways dealing with focal (not holistic) AT supports. Combined with the wide range of non-complex AT needs that HACC clients demonstrate, it is clear that HACC client journeys in the community care system are multiple in nature, and are experienced as confusing, disempowering and frequently unsuccessful. Additionally, 'silo' responses from a range of AT stakeholders, where partial needs are addressed according to the boundaries of the particular profession or service, lead to unmet need and adverse outcomes.

Effective communication and cooperation between all parts of the system is not as yet occurring. Importantly, HACC clients lack the necessary information and supports to undertake autonomous action to meet their own needs in this regard. This issue is likely to have heightened implications within the emerging funding and service models, which emphasise consumer choice and control. The pathways to non-complex AT require mapping and a strategy of information provision to all stakeholders, along with professional development for all pathway providers. HACC and the ILCWA are both seen to be key players in the support of HACC clients in regard to non-complex AT, and hence it is urgent that one or both of these champion action in this arena.

Five key recommendations are proposed to ensure non-complex AT can be effectively assessed, accessed, funded and used:

- To identify the need for and advice about the provision of non-complex AT (as defined here) be explicitly recognised and resourced as part of the HACC Regional Assessment Service role.
- To effectively direct HACC clients, stakeholders require a single, accessible information resource that maps pathways suitable for HACC clients.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

- A critical analysis of the pathways identified in this study from a funding and policy perspective may provide direction in streamlining and linking the range of current pathways available.
- Improving access to and funding of non-complex AT involves articulating competence (specifically soft technology); targeting and extending information provision across the sector, particularly to groups demonstrated to be information-poor; streamlining pathways where possible to simplify the system; and engaging in partnerships to strengthen knowledge transfer and cross referral.
- As the RAS assessor role is an AT pathway in itself, a model embedding a systematic approach to non-complex AT management, and related AT competency, is proposed.

These findings confirm the service directions and continuous improvements proposed by O'Connell.¹⁰⁸ O'Connell's implementation overview of the WA HACC program's wellness approach presents current evidence for the efficacy of the wellness approach, as realised to date, in WA. She concludes that:

The sector and policymakers therefore have a responsibility to ensure that they plan for and provide support services that are targeted – and that those services are evidence based and/or current best practice to provide optimal outcomes for individuals in need of support.^(p.80)

This Report adds to the evidence base available regarding the key facilitators of AT, environmental adaptation and related strategies, and the recommendations made provide the sector and policymakers with indicators for change.

¹⁰⁸ O'Connell H. Challenging community care with wellness: an implementation overview of the WA HACC program's wellness approach. Perth: CommunityWest and HACC; 2013.

Appendix 1 Table 1 Annotated bibliography: non-complex AT

<p>Allen, S. M. (2001). "Canes, crutches and home care services: the interplay of human and technological assistance." <u>Policy Brief (Cent Home Care Policy Res)</u>(4): 1-6.</p>	<p>This brief reports the results of a study investigating the efficacy of canes, crutches, walkers, and wheelchairs for people who need assistance with everyday activities and asks the question, does low assistive technology replace human help for people with disabilities? Study results show that canes and crutches are low cost, versatile aids that can partially substitute for human assistance by reducing the overall number of hours of care required. They can also reduce out-of-pocket expenses for supportive services. Walkers and wheelchairs, on the other hand, appear to supplement, rather than substitute for, human assistance. The brief concludes by recommending that greater use of canes and crutches be actively encouraged to increase the independence of people who need help with daily activities.</p>
<p>Bamer, A. M., F. A. Connell, et al. (2010). "Frequency of purchase and associated costs of assistive technology for Washington State Medicaid program enrollees with spina bifida by age." <u>Disabil Health J</u> 3(3): 155-161.</p>	<p>BACKGROUND: Assistive technology (AT) is one strategy to mitigate or eliminate barriers to independence for individuals with disabilities, including those with spina bifida (SB). However, little is known about current use and costs of AT for people with SB, including the cost burden to medical insurance payees. METHODS: Data included all electronic claims and eligibility records of persons covered by the Medicaid program over a 4-year period (2001–2004) who had at least one service with a coded diagnosis of SB. Procedure codes were reviewed and grouped into the following AT categories: manual wheelchairs, powered wheelchairs, wheelchair cushions and seats, wheelchair accessories and repairs, wheelchair rental, ambulatory aids, orthotic and prosthetic devices, positioning aids, bathroom equipment, beds and bed accessories, and communication and hearing aids. CONCLUSIONS: Medicaid reimbursement for AT, as classified in this study, is a relatively low percentage of overall medical costs for individuals with SB. Because of the small percentage of non-mobility-related AT paid for in this study, we believe there may be a substantial unmet need for AT in this population and/or that individuals with SB may have significant AT-related out-of-pocket expenses. Given its large potential impact and relatively low cost burden to Medicaid, AT is a ‘good buy’ and coverage for AT should be expanded.</p>
<p>Gottlieb, A. S. and F. G. Caro (2001). "Extending the effectiveness of home care</p>	<p>Low technology, low cost assistive equipment has the potential to make traditional, publicly funded home care programs for elders more effective. (p.1)</p>

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

<p>for elders through low-cost assistive equipment." <u>Policy Brief (Cent Home Care Policy Res)(6): 1-6.</u></p>	<p>Elders' quality of life is likely to improve when they can solve daily-living problems more successfully by reducing their reliance on human assistance.</p> <ul style="list-style-type: none"> • Assistive equipment is likely to be a cost-effective complement to one-to-one human assistance. • Creative use of assistive equipment can enable agencies to make more efficient use of scarce workers.(p.1) <p><i>AT: Meal preparation, bathing, dressing, medication management, and expressive activities e.g. were food prep; dressing; bathing i.e. bathseats, grab bars or long-handled bath brushes; mobility i.e. reachers, walker baskets, rolling carts; leisure i.e. scissors, magnifiers, book holders. (p.2)</i></p> <p>The demonstration led to modest increases in assistive equipment use by clients. However, case managers nominated substantially fewer clients and purchased less equipment than had been anticipated. Not until the end of the demonstration did many recognize the potential uses and benefits of assistive equipment. (p.3)</p> <p>Case managers need consistent training. (p.4)</p> <p>Case managers should be allocated time for tasks associated with assistive devices. (p.4)</p> <p>Agencies must develop systems to order and deliver equipment. (p.5)</p> <p>Funds should be allocated for assistive equipment. (p.5)</p>
<p>Hartke, R., Prohaska, T. & Furner, S. (1998) Older Adults and Assistive Devices - Use, Multiple-Device Use, and Need. <i>Journal of Aging and Health, 10, 99-116.</i></p>	<p>23% of older adults in community use some type of AT device, 8% use more than one device (p.106)... almost one in four adults report using assistive devices, with about one third of these people reporting multiple device use. (p.112) Activity limitation (an approximation of functional impairment) serves as the single most significant health characteristic predictor. (p.112) The risk of device use or need clearly increases as the level of impairment increases. (p.112) This study has emphasised the importance of looking beyond simple-device use to consider multiple-device use and expressed need as important facets of older adults' use of assistive devices. (p.114)</p>
<p>Stone, R. (2004) The Direct Care Worker: the third rail of home care policy. <i>Annual Review of Public Health.</i></p>	<p>... very little attention has been paid to the availability and quality of the workforce that provides the services and support. (p.521)</p> <p>The care they provide is intimate and personal ... these frontline workers are the 'eyes and ears' of the care system. In addition to helping with activities of daily living such as bathing, dressing, toileting, eating, and managing medications, these workers provide the personal interaction that is essential</p>

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

	<p>to quality of life and quality of care for chronically disabled individuals. (p.522)</p> <p>Although there is little empirical research documenting the causal link between the quality of home care workers and quality of care / life for consumers, anecdotal evidence suggests that the quality of the worker has a significant effect on clinical, functional and lifestyle outcomes. To develop and sustain a quality home care workforce, policymakers, providers and consumers must have a better understanding of appropriate screening, training, and ongoing clinician and management supports necessary to achieve these objectives. (p.526)</p>
<p>Connell, J., Greal, C., Olver, K. & Power, J. (2008) Comprehensive scoping study on the use of assistive technology by frail older people living in the community. Canberra, Urbis for the Department of Health and Ageing.</p>	<p>AT was identified as having ‘enormous potential’ to improve quality of life, mobility and independence, which remains unrealised in Australia due to barriers such as affordability and the lack of soft technologies including lack of access, information and assessment points and the lack of follow-up home-based training and maintenance.</p>
<p>Gottlieb, A. S. & Caro, F. G. (2001) Policy Brief: Extending the effectiveness of home care for elders through low-cost assistive equipment. <i>Centre for Home Care Policy Research</i>, 6, 1-6.</p>	<p>More than a decade ago, a demonstration project was carried out in Massachusetts, concluding ‘low-technology, low-cost assistive equipment has the potential to make traditional publicly funded home care programs for elders more effective.’ (p.1)</p>
<p>Morgan Parsons, J., Sheridan, N., Rouse, P., Robinson, R. & Connolly, M. (2013) A Randomized Controlled Trial to Determine the Effect of a Model of Restorative Home Care on Physical Function and Social Support Among Older People. <i>Archives of Physical Medicine and Rehabilitation</i>, 94, 1015-1022.</p>	<p>‘functional capacity inside, and more importantly outside the home environment, is essential for independent living [<i>and that</i>] traditional models of home care often miss the opportunity to maximize an older person's physical function and independence’ (p. 1015).</p>

Appendix 2 Competency standards related to HACC and AT

Practice standards related to AT provision	
WHO(2011) World Report on Disability. Malta, WHO.	(p.118) To ensure that assistive devices are appropriate, suitable and of high quality, the devices need to: <ol style="list-style-type: none"> a. suit the environment b. suit the user. Poor selection and fit of aids and equipment, or lack of training in their use, may cause further problems and secondary conditions. Devices should be selected carefully and fitted properly. Users should be engaged in assessment and selection to minimise abandonment because of a mismatch between need and device c. include adequate follow-up to ensure safe and efficient use.
Walker, Layton, Summers & Astbrink (2012) Assistive Technology within the NDIS. Coloundra, ARATA.	<ol style="list-style-type: none"> i. Problem identification ii. AT assessment with an AT practitioner iii. AT trial (across multiple environments of use; adaptation; training) iv. AT prescription/recommendation made and application for AT funding v. Provision (includes fitting, custom-setup, sign-off) vi. Review (clinical review and AT performance review) vii. AT re-evaluation (needs assessment of consumer; equipment lifecycle).
Adapted for Australian use from: AAATE (October, 2012) Service Delivery Systems for Assistive Technology in Europe: Position Paper. EASTIN. (page 13) and Steel, E., Gelderblom, G. & De Witte, L. (2011) Development of an AT selection tool using the ICF model. 23, 1-6.	<ul style="list-style-type: none"> • Initiative (the first contact with the service delivery system) • Assessment (evaluation of needs) • Selection of the assistive solution (defining the individual AT 'pathway') • Selection of the equipment (choosing the specific equipment) • Authorisation (obtaining funding, should this be part of the pathway?) • Implementation (delivering the equipment to the user, fitting and training) <p>Management and follow-up (maintenance and periodic verification)</p>
RESNA STANDARDS OF PRACTICE for Assistive Technology Professionals. USA, RESNA.	(Excerpts) 2. Individuals shall engage in only those services that are within the scope of their competence, their level

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

<p>downloaded October 2012 from resna.org/dotAsset/11598.pdf</p>	<p>of education, experience and training, and shall recognize the limitations imposed by the extent of their personal skills and knowledge in any professional area.</p> <p>8. Individuals shall offer an appropriate range of assistive technology services which may include assessment, evaluation, trial, simulation, recommendations, delivery, fitting, training, adjustments and/or modifications and promote full participation by the consumer in each phase of service.</p>
<p>Hammel, J., & Angelo, J. (1996). Technology Competencies for Occupational Therapists. <i>Assistive Technology (RESNA)</i>, 8, 34-42.</p>	<p>Full set of competencies (basic, intermediate, advanced) for both certified OT assistant and occupational therapists.</p>
<p>Competency standards related to teaching others to provide AT</p>	
<p>Industry Skills Councils (2012) CHCAC317A Support older people to maintain their independence. DEEWR</p>	<ol style="list-style-type: none"> 1. Support the older person with their activities of living. <ol style="list-style-type: none"> 1.1 Encourage older people to utilise support services where appropriate. 1.2 Clearly explain the scope of the service to be provided to the older person and/or their advocate. 1.3 Identify the needs of the older person from the service delivery plan and from consultation with a supervisor. 1.4 Ensure visits and service delivery accommodate the older person's established routines and customs where possible. 1.5 Perform work in a manner that acknowledges that the services are being provided in the client's own home. 1.6 Provide services in a manner that enables the older person to direct the processes where appropriate. 1.7 Provide support/assistance in accordance with organisation policy, protocols and procedures. 1.8 Demonstrate appropriate use of equipment to support/assist the older person with activities of living within work role and responsibility. 2. Recognise and report changes in an older person's ability to undertake activities of living. <ol style="list-style-type: none"> 2.1 Monitor the older person's activities and environment to identify increased need for support/assistance with activities of living.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

	<p>2.2 Report to a supervisor the older person's inability to undertake activities of living independently.</p> <p>2.3 Support/assist the older person to modify or adapt the environment or activity to facilitate independence.</p> <p>2.4 Seek aids and/or equipment to support/assist the older person undertake activities of living independently.</p> <p>3. Support the older person to maintain an environment that maximises independence, safety and security.</p> <p>3.1 Encourage and support/assist the older person to maintain their environment.</p> <p>3.2 Provide support to promote security of the older person's environment.</p> <p>3.3 Adapt or modify the environment, in consultation with the older person, to maximise safety and comfort.</p> <p>3.4 Recognise hazards and address in accordance with organisation policy and protocols.</p>
<p>Stone, R. (2004) <i>The Direct Care Worker: the third rail of home care policy. Annual Review of Public Health.</i></p>	<p>... very little attention has been paid to the availability and quality of the workforce that provides the services and support. ^(p.521)</p> <p>The care they provide is intimate and personal ... these frontline workers are the 'eyes and ears' of the care system. In addition to helping with activities of daily living such as bathing, dressing, toileting, eating, and managing medications, these workers provide the personal interaction that is essential to quality of life and quality of care for chronically disabled individuals. _(p.522)</p>

Appendix 3 Capturing outcomes

In terms of a suitable contemporary outcome framework to inform this research, three key references were located at macro, meso and micro levels.

Macro level outcomes

The overarching elements are provided by Scherer and Cushman¹⁰⁹ who identify professional and consumer preference for a reliable assessment process that includes three essential elements:

- incorporate the consumer's perspective and accommodate individual user preferences
- go beyond functional capabilities to the consideration of personal and social/environmental influences on AT use
- provide documentation to support the chosen AT. (p.129)

Meso level outcomes

Roelands et al. (2004) constructed a detailed decision making guideline to support nurses in providing a range of AT:

Roelands et al. decision-making protocol	Clinical Practice Guideline 'Introducing ADs' adapted from Daniels 1995
<p>Discussing disabilities</p> <p>Exploring the functional skills for performing ADL</p> <p>Discussing ADs for coping with the disability</p> <p>Providing new information regarding ADs</p> <p>Discussing advantages and disadvantages of AD use</p> <p>Exploring necessary skills for handling specific ADs</p> <p>Discussing impact and preferences of significant others</p> <p>Helping to choose the most adequate AD</p> <p>Providing information regarding availability of the AD</p> <p>Evaluating effectiveness of AD use</p> <p>Evaluating satisfaction with the AD</p> <p>Cooperating with other services</p>	<p>Identification of functional status</p> <p>Shared decision-making</p> <p>Choice of most suitable AD</p> <p>Guided practice</p> <p>Evaluation of AD effectiveness</p> <p>Cooperation with services</p>

¹⁰⁹ Scherer M, Cushman L. Determining the content for an interactive training programme and interpretive guidelines for the Assistive Technology Device Predisposition Assessment. *Disability and Rehabilitation*; 2002;24;126-130.

Roelands, M., Vanoost, P., Stevens, V., Depoorter, A. & Buysse, A. (2004)¹¹⁰

This was a significant, quasi-experimental intervention study of 116 nurses and home care workers and 140 clients. In the evaluation, clients were asked whether carers discussed the advantages and disadvantages of these ADs (on a five-point scale from zero to very often). Similarly, workers were asked whether they presented additional or new information regarding Ads to the person (scale from zero not discussed, to 3 we discussed this often). Perhaps surprisingly, given the quality of the guidelines provided, participants reported that they found the decision tree unwieldy and time-consuming. From an occupational therapy perspective the content covers core clinical reasoning and assessment process, suggesting a differentiation between the focus and scope of nursing and home care practice and that of OT, which may require attention if these tasks are to be devolved.

Micro level outcomes

Gottlieb and Caro¹¹¹ constructed an outcome framework to examine the impact of low-cost AT provided through homecare services in Massachusetts in 2000:

Home Care Services: The Massachusetts Assistive Equipment Demonstration. <i>Gerontology Institute Publications</i> .	
Five domains of daily living for which assistive equipment might be appropriate	Items for Measuring Participant Perceptions about Task Difficulty '(IF ABLE: How much of a problem do you have doing this: would you say a big problem, a little problem, or no problem at all?)
Meal preparation/eating	
Jar opener Can opener Peeler/paring board Eating utensils Rolling knife No-slip padding Oven-pull	1. Control the temperature settings on the stove? 2. Open jars, bottles, or cans? 3. Grasp pots or utensils? 4. Slice food (bagels, vegetables, etc.)? 5. Read food labels? 6. Reach food or dishes in cupboards?
Dressing	
Spiral shoe laces Sock aid Button hook Shoe horn Zipper grip	1. Get your socks or stockings on by yourself? 2. Get your shoes on by yourself? 3. Tie or fasten your shoes by yourself? 4. Get your shirt, sweater, or coat on by yourself? 5. Fasten your shirt or coat by yourself?

¹¹⁰ Clinical practice guidelines to improve shared decision-making about assistive device use in home care: a pilot intervention study. *Patient Education and Counseling*, 55, 252-264.

¹¹¹ Gottlieb A S, Caro F G. Providing low-cost assistive equipment through home care services: the Massachusetts assistive equipment demonstration. *Gerontology Institute Publications*; 2000.

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Dressing stick	<p>6. Get on and fasten your pants, slacks, dress, or skirt by yourself?</p> <p>7. Get your underwear (undergarments) on and off by yourself?</p>
Bathing	
<p>Long-handled sponge</p> <p>Bath rail / grab bar</p> <p>Hand-held shower</p> <p>Tub chair</p> <p>Toilet (seat)</p> <p>No-slip bath mat</p>	<p>1. Step into or out of the shower or bath by yourself?</p> <p>2. Wash your legs or feet by yourself?</p> <p>3. Keep steady while standing in the shower or bathtub by yourself?</p> <p>4. Adjust the water temperature by yourself?</p> <p>5. Hold on to the soap?</p> <p>6. Set down in or get up from the bathtub by yourself?</p>
Mobility	
<p>Reacher</p> <p>Walker basket/pouch</p> <p>Cane</p>	
Expressive	
<p>Magnifier</p> <p>Easy-grip pen</p> <p>Book holder</p> <p>Easy-grip scissors</p> <p>Easy-switch lamp</p>	<p>1. Understand what people are saying on TV?</p> <p>2. See the TV screen clearly?</p> <p>3. Switch the TV or radio channels when you want to?</p> <p>4. See print in books, magazines, or newspapers?</p> <p>5. Hold an open book?</p> <p>6. Grip a pencil, pen, or crochet hook?</p>
Other (cleaning, clinical)	
Medication management	
Medi-planner	<p>1. Open pill bottles or jars by yourself?</p> <p>2. Pour or measure medicines by yourself?</p> <p>3. Remember when to take your medications?</p> <p>4. Remember when you last took medications?</p>

Appendix 3 Stakeholder focus group schedule

Focus Group Questions	Prompts
SCOPE OF ASSISTIVE TECHNOLOGY (AT)	
1. What is low cost / non-complex AT? What do stakeholders think constitutes AT and home mods? What gets provided?	Visuals from Equipment and Resource Guide a. SELF CARE ACTIVITIES Walking, transferring and mobility; showering; toileting; continence; grooming; dressing and clothing; eating and drinking; medication management; meal preparation; communication; writing; reading; hearing; telephoning; emergency call systems; managing money
2. Who (which stakeholders) know about recommending AT? - Range of AT - skill / competence in assessing for AT (prescribing)	b. HOUSEWORK ACTIVITIES Vacuuming; sweeping/mopping; cleaning bath/shower; dusting; making beds; clothes washing; ironing c. COMMUNITY ACCESS Car transfers; shopping and unpacking THERAPEUTIC STRATEGIES: Task analysis / energy conservation / work simplification? OTHER e.g. recreation HOME MODIFICATIONS (ramps, rails, fixtures).
PATHWAYS (where to go)	Use WAAF to discuss and triangulate current pathways.
3. How/where can HACC clients obtain needed AT? Whose responsibility? Whose expertise? What referral options are there?	PowerPoint slide of WAAF or pathways e.g. of effective/ineffective pathways
BARRIERS AND FACILITATORS TO OBTAINING AT	
4. What about funding?	Public versus private options – retail chain
5. Wait times?	
6. What about scope of service?	i.e. Do clients get all their needs addressed, or just AT / just home modifications / just personal support etc.? ref. evidence re. effectiveness of tailoring mediators/supports as an AT solution
7. Other comments for the researchers?	NB hand out client flyers to invite HACC clients in via stakeholders.

Stakeholder Data Date of session Name Role (eg supplier, assessment officer)
Professional Background (e.g. OT, Cert 3 Community Services)
Years of experience related to assistive technology
Training and knowledge about assistive technology and home modifications (e.g. ILCWA course, work experience, supplier in services). List any sources of updates and information regarding assistive technology you use.

Appendix 4 HACC clients interview schedule

Date of interview:

1. Client demographics Age Gender Disability
2. AT (and related supports) Q. What AT have you got? For each piece of AT go through:
NAME OF AT _____

WHY Why did you get it [what is it for / does AT address the issue]?	
HOW did you get find out about this AT?	
Was this piece of AT recommended during the RAS assessment?	
Did the recommended aids and equipment seem to match the needs you had identified to the assessor?	
WHERE did you get it What was the [referral] pathway suggested? [give some examples?]	
Where did you obtain the device from?	
How did you find out about this place?	
Did you buy, hire or borrow the device? [If you bought the device, did you get any funding for it? Through which funding?]	
Were there any barriers to getting AT, such as difficulty finding transport to get to a supplier?	
HOW MUCH did it cost / Affordability Was the AT affordable for you?	
Was cost discussed?	
WAITING TIMES/ HOW long did it take How long did you wait / how long was it between your request for RAS assessment and actual assessment?	
How long did you wait / how long was it between: Recommendation from assessor of aids and equipment and identifying a place to get them from	
How long did you wait / how long was it between? Assessment and actually getting aids and equipment to bring home.	
BARRIERS / PROBLEMS Did you have any difficulties in accessing or obtaining the equipment? [access to assessment, assessment process, obtaining the equipment]	
What would improve your access to low cost aids and equipment?	
UNMET NEED Is there AT you don't have but want?	
How did you find out about this?	
Is there AT that the RAS recommended but you don't have?	
Why don't you have this AT?	
Other comments	

Appendix 5 RAS assessor interview schedule

Interview schedule: Assessors

Date of interview:

‘We are researching how aids and equipment (known as AT) and home modifications are accessed, provided, used and funded under the WA Assessment Framework. The literature tells us older people are likely to have ‘unknown, unmet needs’ for AT, and that equipment could improve outcomes such as mobility, independence and quality of life. We are interested in your opinions on how HACC eligible clients get hold of AT’

1. Assessor demographics (name, RAS region, profession/background)
2. Assessor experience (years within HACC? experience outside HACC? previous knowledge? Assessor experience with AT (How did you learn about aids and equipment or AT? Learning networks to keep up to date with AT? Ever had any formal training in AT?).
3. Exploring AT (and home mods).

<p>Self-identified knowledge regarding AT¹¹²</p> <p>CIRCLE ONE</p> <p>What 3 items would be your most frequent referrals / areas of need identification?</p>	<p>KNOWLEDGE descriptive rating scale</p> <p>0. No knowledge/cannot discuss or explain</p> <p>1. Small amount of knowledge / could have basic discussion with client</p> <p>2. Know enough to explain well to client</p> <p>3. Know a lot about this/could provide detailed knowledge to client</p>
---	---

4. Scope, confidence and referral likelihood for range of non-complex AT
- Ask pathways to referral for each category and degree of familiarity; confidence; frequency of referral; to whom could you refer; and identified/known barriers to access for clients

Categories:

- a. Mobility (walking, transferring and mobility)
- b. Personal care (showering, dressing, and grooming)
- c. Continence and toileting
- d. Eating; drinking; food preparation
- e. Medication management
- f. Communication
- g. Housework
- h. Shopping and vehicle mobility
- i. Recreation and leisure

Abandonment: Do you see clients who have AT they do not use?

¹¹² eg. Knowledge of range of devices; contraindications to use; consideration of person/task/environment fit; knowledge of adjustability; identification of any principles behind provision such as levers, wider distribution of force over gripping area etc.; knowledge of techniques such as work simplification

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

5. Pathways to access AT: 'We are calling the process where a client is informed about a source of AT, or a way to be assessed for supports, a Pathway.'

5(a) What percentage of HACC clients would need AT?

5(b) What percentage of HACC clients would need home modifications?

5(c) What percentage of HACC clients would need a change in the way they do things (different method/strategy e.g. work simplification, energy conservation, work rest routine?)

Reflecting on the last month/for the last 10 clients (whichever is greater):

– On how many occasions did you identify a need for AT or modifications?

– On how many occasions did you make a referral?

– Where did you refer?

Issues with pathways

5(g) What do you feel are issues with the current pathways available?

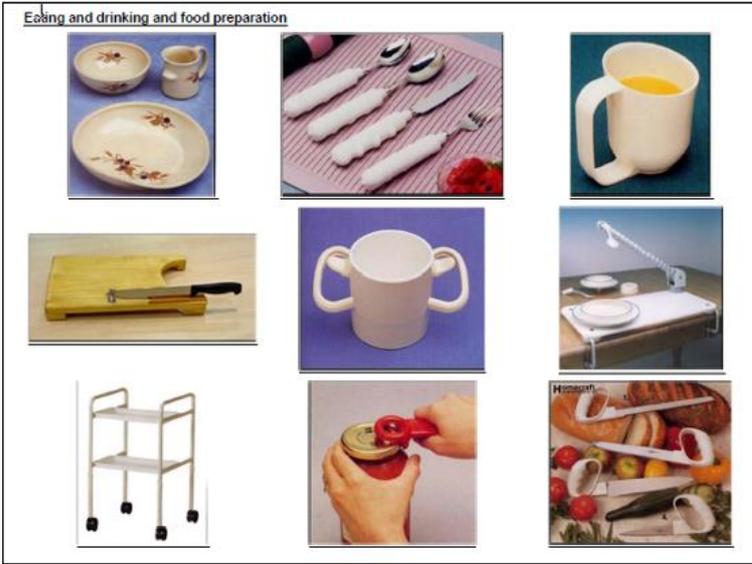
5(h) Do you have the opportunity to find out whether clients followed the pathway successfully?

5(i) What in your opinion would help clients obtain needed AT and related supports?

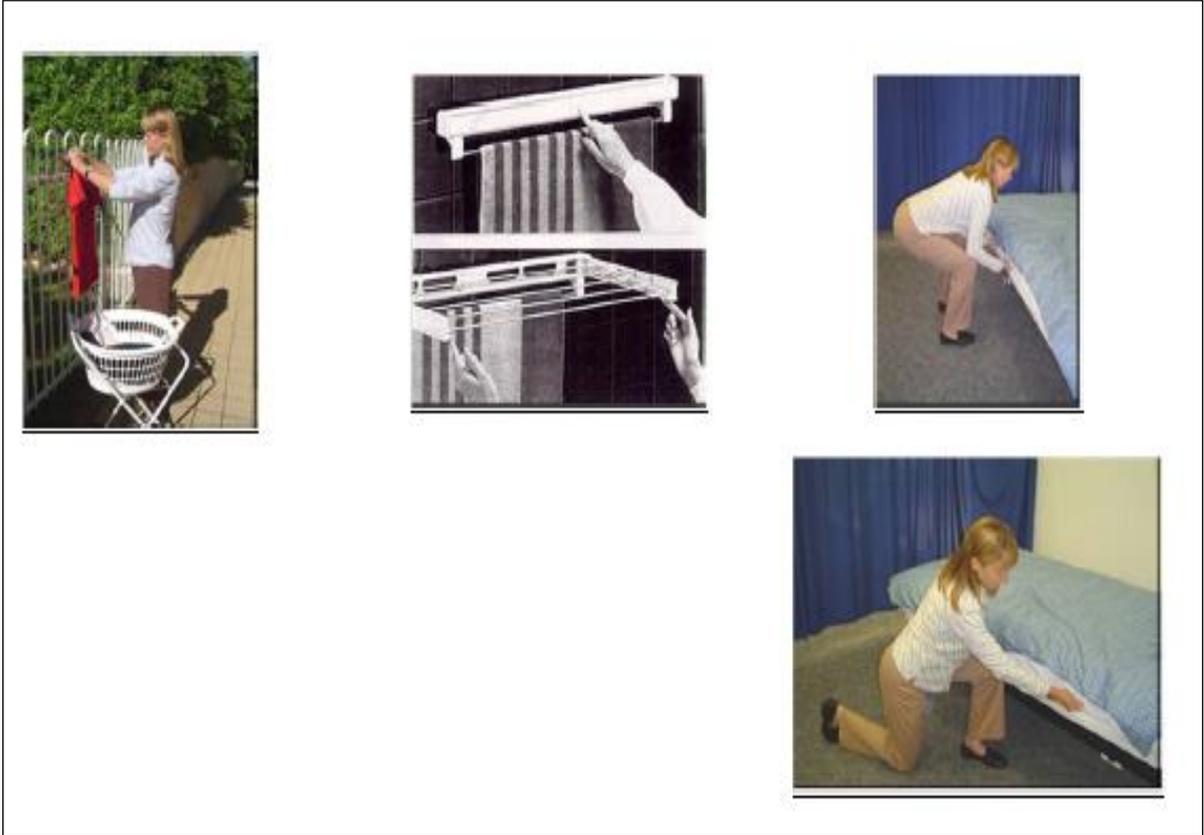
5(j) Do suppliers have the expertise to match AT to clients?



PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA



PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA



Shopping and Vehicle Mobility



PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Recreation and leisure

Gardening

Appendix 7 Full list of RAS identified pathways to AT

	COMMUNICATION	GARDENING	MEDICATION	CONTINENCE	RECREATION	&MOBILITY	PERSONAL CARES	FOOD PREP.	HOUSE. MODS	HOUSE. AT	MOBILITY	TOTALS
PATHWAYS												
Assn. for the Blind	10		3		1							14
Alzheimer's Assn.	2		3									5
Daily Living Products		1		1							1	3
ILCWA	9	8	2	3	4	10	11	14	2	8	11	82
Department of Veteran's Affairs			1	1		1	1	1			1	6
TADWA				2	7	2	7	1	13		9	41
ACAT				1							1	2
Medihire		1		1			1					3
CAEP			1	3	1		3	2	1	1	5	17
Silver Chain	9		1	2						1	1	14
Carelink	2											2
Continence Australia				1								1
Hospital				3			5	2	4	1		15
Mercy Hospital				1								1
Mostery at Fremantle Hospital geriatric clinic				1								1
DSC				2								2
Mandurah Mobility						1	1				1	3
River Abilities						1	2	2		1	2	8
CMAS				12								12
Continence Advisory Service				3								3
GP	10		8	6	1		4	2	2	2	13	48
OT (community or hospital)				1			2	3	2	2	6	16
Physio (community or hospital)				1		1				1	4	7
Social worker					3		1			1	3	8
Optometrist			2									2
Allied Health assessment								1				1
RAS talks techniques		2				3				10		15
HACC support services for techniques			1		3	1				1		6
HACC garden shed		1										1
HACC day centres		1										1
HACC/NON HACC service provider assistance			2		5							7

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

HACC/NON HACC day clubs					2							2
HACC/NON HACC local area services					1	1						2
HACC/NON HACC day therapy centres					4					1		5
HACC walking group					1							1
HIP or PEP	1				1	1	1			4	1	9
Falls Prevention programme										3	1	4
Allied Health Home Mobility Programme						1						1
Live Longer live Stronger		1										1
WaterWise Programme		1										1
Volunteer Task Force		2			1							3
People Who Care		1										1
Bethanie Community Care		1										1
Disability Centre Balcutta Road					1							1
Blue Force	1											1
Lions Eye Institute	1											1
PACS	1											1
Retirement Home Managers	1											1
Redcross/telecross	3											3
Redcross hire							1				1	2
Ambulance	1											1
Private companies	1											1
Telstra	2											2
Local shops	2					1	2	1		2	1	9
Newsagents	1											1
Phone shops	1											1
Harvey Norman	2									2		4
Dick Smith	2											2
K-Mart						1		1		1		3
Chemist Warehouse							1					1
Target					1					1		2
Big W	1	1			1					2		5
\$2 shop			1		1							2
Coles								1		1		2
Ikea										1		1
Woolworths										2		2
Godfreys										1		1
Crazy Clarks										1		1
Everyday stores			2			1						3
Bunnings		11					1	1	4			17
Second hand stores										1		1
Penny Millar					1							1

PATHWAYS TO NON-COMPLEX ASSISTIVE TECHNOLOGY FOR HACC CLIENTS IN WA

Homecare Magazine							1			1
Home catalogues				1	1					2
Gardening stores / local nurseries		2								2
Local hardware stores/shops		1							1	2
Sports shops				1						1
Department Stores/shopping centres					1					1
Red Dot					2					2
Supermarket					1		1		2	4
Mobility stores		1					1		1	4
Family members		2	1					2		6
Non-HACC services			2	2						4
Pharmacy			16		1	3	3			27
Non-charging pharmacy			1							1
iPad search							1			1
Internet			2		1	1				4
Ebay			1							1
Mandurah Community Health				1			1			3
Glyde Street Community Centre				1						1
Community Health Centre				1						1
Centre based day care				4						4
Senior WA Leisure Centre				1						1
Senior Citizen Centre				1						1
Men's shed				2						2
Autumn clubs				1						1
Volunteering				2						2
Council course				1						1
Community library				3						3
Local interest group				1						1
Perth Library				1						1
Befriend				1						1
Yellow Bird				1						1
U3A				1						1
Umbrella				1						1
Local shire				1						1
Innovations					1					1

Appendix 8 Project Limitations

Scope

HACC services within WA are subject to ongoing change, therefore this project represents a moment in time of service delivery for a small sample of non-rural HACC clients. Efforts have been made to relate international and national developments in non-complex AT for older people and those living with disability to the WA HACC context. Aspects of the literature (such as AT competency standards) are presented in brief, but offer a foundation for further work in the area of competence delineation.

Method

A strength of the project was the capturing of multiple perspectives through engaging with a range of AT stakeholders, including HACC clients. A valuable extension to the topic would be a comparison of the experiences of a matched cohort, that is, community dwellers requiring supports but not utilising HACC services. It is likely such groups (including self-funded individuals) bypass many of the service structures captured here, and their experiences obtaining non-complex AT and related soft technologies would be likely to provide insights into standards required for good outcomes.

Sample

This project engaged a wider number and variety of AT stakeholders than anticipated, largely due to significant interest from the sector in the focus groups, and subsequent purposeful sampling (for example pharmacy, GP and nursing). While a substantial number and range of AT suppliers engaged with the project, there are many WA suppliers of non-complex AT who did not participate, thus it is likely that useful perspectives remain unheard: particularly from teams where fewer services and supports exist and the AT supplier may be providing 'soft technology' in a more extensive way than captured here. Sampling was limited in other ways: only seven HACC clients were recruited within the time period available, and only one GP was available for interview. Additionally, despite efforts to recruit multicultural and indigenous clients and AT stakeholders who address multicultural needs, these groups proved difficult to locate or to engage. The Pharmacy Guild did not accept an invitation to be interviewed; therefore, a number of secondary questions as to AT competency in pharmacy settings could not be explored.