

# **OUT OF SCOPE: LOCATING ASSISTIVE TECHNOLOGY IN INJURY INSURANCE REHABILITATION LEGISLATION AND GUIDELINES**

Emily J Steel

*School of Health and Wellbeing, The University of Southern Queensland, Australia and TC Beirne School of Law, The University of Queensland, Australia*

## **ABSTRACT**

Reforms to Australia's disability support and injury rehabilitation sectors have prompted examination of service structures and cost-effectiveness in existing systems. Little is known about the provision of assistive technology in Australia's injury insurance sector. This study explored assistive technology in the legislation, standards and guidelines for rehabilitation in Queensland's motor accident injury insurance sector. Key policy documents published by the Motor Accident Insurance Commission (MAIC) were analyzed to locate concepts and interpretations relevant to assistive technology provision. The Act embraces a broad definition of rehabilitation, while its supporting guidelines and standards adopt narrower interpretations. Guidelines refer to aids and equipment to improve independence, as part of a medical model of treatment set out in the Standards. The legislative framework provides opportunities to develop and improve assistive technology provision as part of an integrated approach to rehabilitation.

## **INTRODUCTION**

The World Health Organization (WHO) recognizes that in addition to medical treatments that remediate illness and impairment, rehabilitation interventions are critical for enabling participation of people with disability (World Health Organization & World Bank, 2011). Australia's injury insurance and disability support sector provides a range of rehabilitation services for different populations in different jurisdictions. In Queensland, a Compulsory Third Party (CTP) scheme provides insurance for motor vehicle owners, drivers and passengers injured by, or in connection with the use of the insured vehicles. The scheme

funds rehabilitation services for eligible individuals and promotes systemic change through activities including road safety initiatives and research.

Research has highlighted inequities and inadequacies in access to rehabilitation services for people injured in Australia (Harrington, Foster, & Fleming, 2015) and gaps in evidence for rehabilitation services provided (Foster, Allen, & Fleming, 2015). Reforms to the sector, including the rollout of the National Disability Insurance Scheme (NDIS) and the introduction of a National Injury Insurance Scheme (NIIS) propose to spread the lifetime insurance cost across the Australian population and fund individuals based on need for supports including personal assistance, assistive technologies and home modifications. The new schemes emphasize evidence-based practices and social and economic outcomes ("National Disability Insurance Scheme Act 2013," 2013).

Rehabilitation is acknowledged to be critical to restore functioning and promote quality of life, but translation of research into evidence-based practice is challenging (Johnston, Sherer, & Whyte, 2006). An assessment of the quality of assistive technology provision requires data not only on outcomes, but also the structures and processes guiding practice (Donabedian, 1988). This study examined where assistive technology is located and how it is understood in the policy framework under the regulatory authority of the Motor Accident Insurance Commission (MAIC) in Queensland, providing critical data to contextualize the translation of knowledge into practice.

## **METHODS**

Publically available policy documents by MAIC were identified (see Table 1) and analyzed qualitatively in an iterative process of

content and context analysis (Miller & Alvarado, 2005).

Table 1: Policy documents analyzed in hierarchical order

Document title	Year published	Short name
Motor Accident Insurance Act 1994	1994	the Act
Rehabilitation Standards for CTP insurers	2007	the Standards
Guidelines for CTP Rehabilitation Providers	2012	the Guidelines

Content analysis began by reading each document to identify meaningful sections and pertinent information related to assistive technology and rehabilitation (or proxy terms) (Bowen, 2009). Each document was then re-read more carefully, applying pre-defined codes from preliminary questions (see Table 2). This generated further questions that were used for the second and third reading and coding of the documents.

Table 2: Questions developed iteratively to analyze policy documents

<b>Preliminary questions</b>	<p>Are the following terms mentioned in the documents? Where?</p> <ul style="list-style-type: none"> <li>▪ Rehabilitation</li> <li>▪ Assistive technology</li> </ul> <p>Are these terms explicitly defined in the documents?</p>
<b>Secondary questions</b>	<p>What proxy terms are used to relate to rehabilitation or assistive technology?</p> <p>Is the use of the term assistive technology related to products?</p> <p>Is the use of the term assistive technology related to services?</p> <p>Is there reference to specific examples of assistive technologies?</p> <p>Are there specific actions recommended for assistive technology provision?</p>
<b>Tertiary questions</b>	<p>Are there unexpected or unusual ideas about rehabilitation or assistive technology that appear?</p> <p>How does assistive technology intersect with other rehabilitation services?</p>

The context analysis of the documents focused more on the hierarchy and intentions of the documents, treating them as actors

produced within institutional structures that interact with people involved in assistive technology provision. This required examination of the language to interpret the intentions and priorities of the documents' authors and their target audience, and the information or perspectives informing them (Miller & Alvarado, 2005). Several conceptual lenses were applied to identify the dominant discourses of rehabilitation and assistive technology (e.g. rehabilitation as a process that aims to remediate impairment or rehabilitation as a process that aims to optimize quality of life).

## FINDINGS AND DISCUSSION

### Defining and interpreting 'rehabilitation' and 'assistive technology'

Section 51 of the Act sets out the obligation of insurers to provide rehabilitation, defined in Section 4 as "the use of medical, psychological, physical, social, educational and vocational measures (individually or in combination)—

(a) to restore, as far as reasonably possible, physical or mental functions lost or impaired through personal injury; and

(b) to optimize, as far as reasonably possible, the quality of life of a person who suffers the loss or impairment of physical or mental functions through personal injury."

Part (b) of this definition resonates with recent international definitions of rehabilitation as "a set of measures that assist individuals, who experience or are likely to experience disability, to achieve and maintain optimum functioning in interaction with their environments" (World Health Organization & World Bank, 2011, p. 96). Assistive technology is recognized by the WHO as a critical element of rehabilitation, and therefore assumed to be included in the Act's definition.

To ensure compliance with Section 51, MAIC has authority to issue standards and guidance for assessment and monitoring of rehabilitation providers, and issued Rehabilitation Standards for CTP insurers in 2007 (Motor Accident Insurance Commission, 2007). The Standards set out principles of rehabilitation, roles of stakeholders and criteria for service delivery. While intended to promote best practice and

support a consistent approach to obligations under the Act, the Standards adopt a much narrower definition of rehabilitation, focused on optimizing "recovery" without mentioning quality of life (p. 6). Within the Standards, principles specify that rehabilitation is based on a "medical model" with "treatment" decisions led by a medical practitioners (p. 6). Rehabilitation medicine focuses on improving functioning, treating or reducing impairments, and preventing or treating complications (World Health Organization & World Bank, 2011). These interpretations in the Standards have implications for the types of services funded by insurers.

In addition to the Act and the Standards, MAIC published Guidelines to promote understanding of the scheme and facilitate communication between rehabilitation providers and insurers. The Guidelines list rehabilitation services in Part III, including "aids and equipment to improve the claimant's independence" and "home/vehicle modifications" (Motor Accident Insurance Commission, 2012, p. 4). Contemporary definitions of rehabilitation focus on optimizing functioning while recognizing the inherent interdependence of people, regardless of their health status. A focus on interventions that improve independence can exclude consideration of assistive technologies that promote quality of life but involve human assistance. Similarly, the term 'aids and equipment' implies a focus on products designed specifically for people with disability, potentially excluding universally-designed products that may be more cost-effective and less socially stigmatizing (Bauer & Elsaesser, 2012). More importantly, references to 'aids and equipment' do not capture the element of services included in the umbrella concept of assistive technology.

#### Justifying interventions and measuring outcomes

Insurers are obliged under Section 51 of the Act to make "reasonable and appropriate rehabilitation services" available to claimants ("Motor Accident Insurance Act 1994," p. 65). The Guidelines set out the obligations of providers to justify their rehabilitation interventions with functional goals and

measurable outcomes that reflect research evidence or clinical guidelines (p. 6). A process is set out, beginning with assessment and formulation of an initial plan to be approved. After a plan has been approved, providers are expected to submit regular progress reports and notification of discharge to insurers, "to ensure equipment, modifications and services (if required) are in place prior to discharge" (p. 9).

With respect to the provision of "aids, equipment, home & vehicle modifications", the Guidelines suggest that consideration be given to the most cost-effective options available and that requests include details about a recommended product, justified on the basis of "clinical need" and "supporting medical documentation" (p. 11). A suggested format for requests is provided in Form D, with fields to provide information on the item, supplier, cost (separating components and labor costs) and the clinical need, and the option to provide comparative information for other items investigated or trialed. The Guidelines do not make reference to requests to fund assistive technology services such as trials, fitting and customizing, training, or servicing and upgrading. Such information is important for comparing the cost-effectiveness of proposed interventions, as the assistive technology services may be sourced from more than one provider (e.g. therapist, supplier, engineer) and cost more than the products purchased. The rehabilitation described in the Guidelines is time-limited, with no mention of planning and provision of follow-up and maintenance services to support ongoing assistive technology use.

### **CONCLUSION**

This study explored the legislative and policy framework for assistive technology provision in Queensland's motor accident insurance sector as a preliminary step to assess quality and develop strategies for improvement. The key finding is that the concepts and language of assistive technology are not part of the legislative or policy frameworks guiding rehabilitation practice in Queensland's motor accident insurance sector. Guidance is framed by a medical discourse that retains a focus on the treatment of impairment, rather than on

functional needs and the promotion and measurement of quality of life. This is reflected in the continued use of the terms 'aids' and 'equipment', in contrast to the terminology of 'assistive technology' that was adopted by most other countries in the 1990's (Heerkens, Bougie, & de Kleijn-de Vrankrijker, 2010).

The documents do not provide consistent interpretations of rehabilitation, potentially limiting the scope of practice and excluding effective strategies including the use of assistive technologies. The Act provides a broad definition of rehabilitation that includes all interventions aimed at reducing or remediating impairment and optimizing quality of life. The Standards and Guidelines that were developed to support insurers in meeting their obligations interpret rehabilitation in a medicalized framework, narrowing the scope of practice.

Assistive technology provision has not been mentioned in proposals for rehabilitation reform in Australia (Australian Rehabilitation Alliance, 2011), but the legislative framework in Queensland provides for an integrated approach to rehabilitation. With its authority to issue guidance and standards and its monitoring powers, MAIC could play a more active role in ensuring minimum standards and development of assistive technology provision.

## REFERENCES

- Australian Rehabilitation Alliance. (2011). *The Need for a National Rehabilitation Strategy*: Sydney.
- Bauer, S., & Elsaesser, L.-J. (2012). Integrating medical, assistive, and universally designed products and technologies: assistive technology device classification (ATDC). *Disability and Rehabilitation: Assistive Technology*, 7(5), 350-355. doi:10.3109/17483107.2011.653000
- Bowen, G. A. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, 9(2), 27-40. doi:10.3316/qrj0902027
- Donabedian, A. (1988). The quality of care: How can it be assessed? *JAMA: the journal of the American Medical Association*, 260(12), 1743-1748. doi:10.1001/jama.1988.03410120089033
- Foster, M., Allen, S., & Fleming, J. (2015). Unmet health and rehabilitation needs of people with long-term neurological conditions in Queensland, Australia. *Health & Social Care in the Community*, 23(3), 292-303. doi:10.1111/hsc.12146
- Harrington, R., Foster, M., & Fleming, J. (2015). Experiences of pathways, outcomes and choice after severe traumatic brain injury under no-fault versus fault-based motor accident insurance. *Brain Injury*, 1-11. doi:10.3109/02699052.2015.1075142
- Heerkens, Y. F., Bougie, T., & de Kleijn-de Vrankrijker, M. W. (2010). Classification and terminology of assistive products. In J. H. Stone & M. Blouin (Eds.), *International Encyclopedia of Rehabilitation*. Buffalo, NY: Center for International Rehabilitation Research Information and Exchange (CIRRIE),. Retrieved from <http://cirrie.buffalo.edu/encyclopedia/en/article/265/>.
- Johnston, M. V., Sherer, M., & Whyte, J. (2006). Applying evidence standards to rehabilitation research. *Am J Phys Med Rehabil*, 85(4), 292-309. doi:10.1097/01.phm.0000202079.58567.3b
- Miller, F. A., & Alvarado, K. (2005). Incorporating Documents Into Qualitative Nursing Research. *Journal of Nursing Scholarship*, 37(4), 348-353. doi:10.1111/j.1547-5069.2005.00060.x
- Motor Accident Insurance Act 1994, Office of the Queensland Parliamentary Counsel (2013 October 29).
- Motor Accident Insurance Commission. (2007). *Rehabilitation Standards for CTP Insurers*. Retrieved from Brisbane: [https://maic.qld.gov.au/wp-content/uploads/2016/06/final\\_rehabilitation\\_standards.pdf](https://maic.qld.gov.au/wp-content/uploads/2016/06/final_rehabilitation_standards.pdf)
- Motor Accident Insurance Commission. (2012). *MAIC Guidelines for Compulsory Third Party (CTP) Rehabilitation Providers*. Retrieved from Brisbane: [https://maic.qld.gov.au/wp-content/uploads/2016/02/MAIC\\_Guidelines\\_for\\_CTP\\_Rehabilitation\\_Providers\\_2013\\_Nov\\_26.pdf](https://maic.qld.gov.au/wp-content/uploads/2016/02/MAIC_Guidelines_for_CTP_Rehabilitation_Providers_2013_Nov_26.pdf)
- National Disability Insurance Scheme Act 2013, C2013A00020, Attorney-General's Department (2013 2013-04-04).
- World Health Organization, & World Bank. (2011). *The World Report on Disability*.

Retrieved from Geneva:  
[www.who.int/disabilities/world\\_report/2011/en/](http://www.who.int/disabilities/world_report/2011/en/)