Principles to Support Rehabilitation Care
The Agency for Clinical Innovation (ACI) works with clinicians, consumers and managers to design and promote better healthcare for NSW. It does this through:

- **service redesign and evaluation** – applying redesign methodology to assist healthcare providers and consumers to review and improve the quality, effectiveness and efficiency of services.

- **specialist advice on healthcare innovation** – advising on the development, evaluation and adoption of healthcare innovations from optimal use through to disinvestment.

- **initiatives including Guidelines and Models of Care** – developing a range of evidence-based healthcare improvement initiatives to benefit the NSW health system.

- **implementation support** – working with ACI Networks, consumers and healthcare providers to assist delivery of healthcare innovations into practice across metropolitan and rural NSW.

- **knowledge sharing** – partnering with healthcare providers to support collaboration, learning capability and knowledge sharing on healthcare innovation and improvement.

- **continuous capability building** – working with healthcare providers to build capability in redesign, project management and change management through the Centre for Healthcare Redesign.

ACI Clinical Networks, Taskforces and Institutes provide a unique forum for people to collaborate across clinical specialties and regional and service boundaries to develop successful healthcare innovations.

A key priority for the ACI is identifying unwarranted variation in clinical practice. ACI teams work in partnership with healthcare providers to develop mechanisms aimed at reducing unwarranted variation and improving clinical practice and patient care.

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Introduction

‘Rehabilitation is an important part of the recovery process after surgery or significant injury. Rehabilitation has a whole of person approach that aims to achieve the highest possible level of function, maximise quality of life and minimise the need for ongoing health and community support. Rehabilitation aims to restore function across physical, psychological, social and vocational domains’.1

‘Rehabilitation involves identification of a person’s problems and needs, relating the problems to relevant factors of the person and the environment, defining rehabilitation goals, planning and implementing the measures, and assessing the effects’.2

Rehabilitation

The World Health Organization defines rehabilitation as ‘a set of measures that assist individuals who experience, or are likely to experience, disability to achieve and maintain optimal functioning in interaction with their environments’.2

The concept of rehabilitation is broad, however rehabilitation:

- targets improvements in individual functioning
- includes making changes to an individual’s environment
- reduces the impact of a broad range of health conditions
- typically occurs for a specific period of time, but can involve single or multiple interventions delivered by an individual or team
- can be needed from the acute or initial phase immediately following recognition of a health condition through to post-acute and maintenance phases.2

Rehabilitation care

Rehabilitation care contributes to the health and wellbeing of the community by improving health outcomes and reducing disease burden, reducing healthcare costs and costs of social services, reducing disability and improving community participation of people with a disability, and improving quality of life.3–9

Rehabilitation care aims to minimise and/or prevent disability, support people to improve their participation in life, and reduce the impact on families and the community.2 Rehabilitation care helps people achieve and maintain optimal function in interaction with their environment through five outcomes.

- Prevention of the loss of function.
- Slowing the rate of loss of function.
- Improvement or restoration of function.
- Compensation for lost function.
- Maintenance of current function.2

Rehabilitation care can be provided in various settings such as:

- in-reach
- inpatient
- outreach
- ambulatory care
  – outpatient
  – day hospital
  – home-based.

Over 4 million people in Australia have some form of disability, with around 1.8 million (50.7%) of these Australians aged 65 and over.10 Around 2.1 million Australians of working age (15–64 years) have a disability, and approximately 35.9% of Australia’s 8.9 million households include a person with disability.10

The spectrum of disability is broad and can be associated with loss of independence and reduced quality of life. It can also have a devastating effect on individuals, families and carers. About 60% of Australians living with disability need assistance with at least one activity of daily life, and approximately 16% of people with a disability report specific limitations or restrictions to their activity or participation, including employment and schooling.11
Rehabilitation settings

Rehabilitation can be provided in various settings such as:

**In-reach**
Refers to an innovative service providing early specialist rehabilitation services in acute care settings. An in-reach team usually implements a ‘reaching in’ model of multidisciplinary input to begin the process of rehabilitation in addition to the acute care being provided.

**Inpatient**
Refers to the time spent in hospital, from the time of admission, in either a stand-alone or a co-located sub-acute setting. Comprehensive care from the multidisciplinary rehabilitation team is provided.

**Outreach**
Refers to a ‘hub and spoke’ model where rehabilitation is provided outside a specialised unit. A ‘consultative’ model (hub site provides advice/support to spoke site) or ‘collaborative’ model (hub and spoke sites work together to provide a rehabilitation program) can be used between a tertiary hospital and a regional hospital, or a regional hospital and a neighbouring rural hospital.

**Ambulatory care**

**Outpatient**
Refers to discipline specific therapy provided in an outpatient setting.

**Day hospital**
Refers to when a comprehensive multidisciplinary rehabilitation program is provided in an outpatient setting. Treatment is often provided by two or more disciplines.

**Home-based**
Refers to when a rehabilitation program is provided within the home environment with individualised and task specific therapy.

Rehabilitation data

In 2015–16, almost 435,000 separations were reported for rehabilitation care across Australia, with 76% occurring in private hospitals, about 80% were for people over the age of 60 years, and the majority (81%) were for people living in major cities. There were 102,784 separations for rehabilitation care reported in Australian public hospitals and 331,998 separations for rehabilitation care reported in Australian private hospitals. For the public and private sectors combined, rehabilitation care accounted for 10% of patient days, and for public hospitals alone, 55% of patient days were for rehabilitation care during 2015–16. The average length of stay for rehabilitation care episodes was 15.8 days in public hospitals, and 4.0 days in private hospitals. In part, this reflects a high proportion of same-day rehabilitation separations in private hospitals, as well as a number of very long stays for rehabilitation separations in public hospitals’ (p. 74). In NSW there were 39,184 separations in NSW public hospitals and 208,551 separations in NSW private hospitals reported in 2015–16, with 484,136 patient days reported for rehabilitation care in NSW public hospitals and 609,403 patient days reported for rehabilitation care in NSW private hospitals.
Rehabilitation services

Australia’s health system overarching vision is for better health and wellbeing for all Australians. Rehabilitation facilitates this in many ways. Within the context of healthcare, rehabilitation can be provided as an intervention as well as a service. Individuals of all ages in a wide variety of healthcare settings and services can benefit from health professionals realising the potential for rehabilitation. Research evidence shows rehabilitation that begins early produces better functional outcomes for almost all health conditions associated with disability. At the core of rehabilitation is a way of thinking, and every health professional should have rehabilitation skills in their toolkit ready to use when an individual requires this approach.

The scope of rehabilitation means that a diverse range of health professionals, services and external agencies may contribute to meeting an individual's needs. Rehabilitation services play an important role in bridging care that occurs across various healthcare settings. Rehabilitation models can provide early and intensive rehabilitation in an acute care setting, as well ongoing rehabilitation in the community, to ensure optimal functioning of an individual in everyday environments. Rehabilitation services should be able to be accessed at any age as an individual's needs change through their lifetime. Individuals may require support to: develop skills for the first time, recover from illness, recover from major trauma or injury, maintain skills and independence, manage long-term conditions, self-manage conditions, and access advocacy.

Rehabilitation framework

This document provides a framework, developed from expert opinion, literature review and consultation with clinicians and consumers, that represents a theoretical understanding of rehabilitation as a coherent complex intervention that is greater than the sum of its parts. It explains rehabilitation using program theory and a logic model which highlights the values and core activities that underpin effective rehabilitation. The framework outlines the elements of rehabilitation care that should be visible in all rehabilitation services, and provides guidance for new services being established extending from the values displayed by rehabilitation staff, to the inputs and activities, along with the outputs and outcomes of rehabilitation.

This document provides the principles to support rehabilitation care across NSW. It provides a guide for the establishment of new rehabilitation services and for the development of existing rehabilitation services. Those looking to establish new rehabilitation services can use the document to determine the elements required for successful rehabilitation implementation. Existing rehabilitation services can review their service to determine if they have all the essential elements to identify what changes are required. This document defines the goals and aspirations for good rehabilitation. Furthermore, it provides a valuable resource for health professionals and the broader community who wish to understand the nature of rehabilitation within the context of health care.
This document provides the principles to support rehabilitation care across NSW. It is informed by the original NSW Rehabilitation Model of Care, which was finalised and endorsed by the Director General NSW Health in 2011. The 2011 document supported NSW rehabilitation services to implement new and innovative rehabilitation care models using Commonwealth funding distributed during a five year period between 2008 and 2013. The NSW Rehabilitation Model of Care: NSW Health Rehabilitation Redesign Project, Final Report – Model of Care document details the project and development of the model of care.

It is intended that the ACI Rehabilitation Network will use this document to inform the development of descriptors for each of the rehabilitation care settings. Together, these will supersede the 2011 NSW Rehabilitation Model of Care. Additionally, speciality rehabilitation models of care, service delivery and clinical practice standards will sit under this overarching framework document. For example, the Care of the Person following Amputation – Minimum Standards of Care, the Spinal Cord Injury Report ‘Spinal cord injury: care and support: current situation and options for improvement’, the NSW Brain Injury Rehabilitation Model of Care and the NSW Paediatric Rehabilitation Model of Care are aligned with this document.

Rationale

With the publication of the NSW Rehabilitation Model of Care Report in 2015, the Research Working Party of the ACI Rehabilitation Network agreed to prioritise a review of the 2011 Model of Care. It was recognised that the strength of the original document was the content relating to the rehabilitation settings, but it lacked a theoretically robust framework relevant to all rehabilitation settings. Such a framework needed to be informed by a critique of the international literature, consultation with clinical experts representing the multidisciplinary profile of rehabilitation services, and include the consumer voice.

It was identified that program theory and program logic would assist to outline the key care components expected within services providing rehabilitation care, as well as enabling a greater emphasis on the values and activities of rehabilitation as defining aspects of the rehabilitation service. The ACI Rehabilitation Network Research Working Party had hosted a Research Study Day in 2014 incorporating discussion of how to address the ‘black box of rehabilitation’. The notion of program theory and program logic were key ideas raised by the research and clinical communities and were also being used heavily in work by the ACI at the time. There is international recognition that rehabilitation requires a theoretical underpinning so there was endorsement to use program theory and program logic to support this document and guide potential research. The ACI, ACI Rehabilitation Network Executive and ACI Rehabilitation Network Research Working Party were in favour of pursuing development in this area and three key working group members attended professional study courses and workshops to acquire the skills and knowledge to assist with development of program theory and program logic.

Process

A steering committee was formed from the ACI Rehabilitation Network Executive and a working party with medical, nursing, allied health and consumer representatives established. The working party met over an 18-month period during 2015–17 to create the document. Through robust discussion, informed by clinical knowledge, and underpinned by a diverse body of literature, the working party reconceptualised rehabilitation service delivery, focusing on the component parts and interactions between these, as well as interdependencies within the system.

Two forums were held in 2017 to seek feedback and comments on the content. The first forum was held in March 2017 and attended by ACI Rehabilitation Network members, clinicians, managers and non-government representatives. The second forum was held in July 2017 and was specifically for consumers. The ACI conducted a public consultation process. The draft document was available for review on the ACI website from 1 December 2017 and comments closed 22 December 2017. Comments were received from medical, nursing, allied health and management within the rehabilitation community.

Further development of the document was undertaken by a second working group during 2018–2019, involving internal ACI consultation, to finalise content and format.
Use of this document

This document provides a guide for the establishment of new rehabilitation services and for the development of existing rehabilitation services against a broad set of principles. This idealised set of principles shape decisions from individual clinical encounters to broader policy and organisational change programs. It articulates a shared understanding of what rehabilitation should look like.

The creation of a framework for rehabilitation and establishing the important elements required, are critical to improving access to rehabilitation. The rehabilitation framework is based on analysis of the current situation derived from expert opinion and current evidence, and considers the important aspects of rehabilitation provision. Whilst it may not be immediately possible to provide rehabilitation services for all who need them, this document defines the principles that will progressively strengthen and expand the rehabilitation system.

‘Information to guide good practice is essential for building capacity, strengthening rehabilitation systems, and producing cost-effective services and better outcomes’ (p.120). This document provides a framework for rehabilitation service delivery in NSW that is applicable to any rehabilitation program or setting. In the context of this document, a rehabilitation service has the overarching responsibility for the delivery of clinical rehabilitation programs which may vary in scope, intensity and setting. The rehabilitation service is led by a health professional with specialist skills in rehabilitation, providing leadership and governance for the programs provided.

Intended audience

The intended audience for this document includes health service directors, health managers and executives, as well as health professionals and the broader community, who guide development and improvement of rehabilitation services. The program theory and program logic embedded within the document provides a helpful structure to start a review of existing rehabilitation services, and to develop rehabilitation service approaches.
Aboriginal people are the first peoples of Australia and have strong cultures and communities. NSW Health is committed to Closing the Gap in health outcomes between Aboriginal and non-Aboriginal people.

**The health context**

NSW Health data from 2017–18 inpatient hospital admissions showed that of the 35,610 episodes of rehabilitation care, 475 episodes were for Indigenous people.

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Episodes – Indigenous</th>
<th>Episodes – Non-Indigenous</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;17</td>
<td>16</td>
<td>327</td>
<td>4.9</td>
</tr>
<tr>
<td>18-69</td>
<td>305</td>
<td>10,921</td>
<td>2.8</td>
</tr>
<tr>
<td>70-84</td>
<td>129</td>
<td>16,374</td>
<td>0.8</td>
</tr>
<tr>
<td>&gt;85</td>
<td>25</td>
<td>7,988</td>
<td>0.3</td>
</tr>
<tr>
<td>All ages</td>
<td>475</td>
<td>35,610</td>
<td>1.3</td>
</tr>
<tr>
<td>Population</td>
<td>216,176</td>
<td>7,480,228</td>
<td>2.9</td>
</tr>
</tbody>
</table>

To determine the specific challenges and health priorities for this population group, an ACI working group has been formed to examine this further. The objective of the working group is to optimise hospital stay and improve the experience of Aboriginal peoples (and their families and communities), who have an unexpected long stay in hospital following a traumatic event - specifically brain injury, spinal cord injury, burns and events requiring rehabilitation services.

Barriers impacting access for Aboriginal people to healthcare, and thereby rehabilitation services, include discrimination, lack of cultural safety, distance from home and out of pocket healthcare costs. This document aims to ensure appropriate and consistency of quality of care, as well as equitable access, to rehabilitation services for all NSW residents, including Aboriginal and Torres Strait Islander peoples.

**The potential impact**

This document includes a section for consideration of how Aboriginal peoples are included in rehabilitation services and settings. It will help Aboriginal peoples to have increased access to appropriate rehabilitation.

This document seeks to address key service delivery principles for Aboriginal peoples to Close the Gap including engagement and access. Promotion and dissemination of this document will be undertaken using networks that link Aboriginal health workers and Aboriginal peoples already established through ACI.

We will continue to liaise with the networks that link Aboriginal health workers and Aboriginal peoples already established through ACI to monitor and evaluate the impact of the principles outlined in this document.

**Engagement with Aboriginal people**

This document has been reviewed with the networks that link Aboriginal health workers and Aboriginal peoples already established through ACI.

This document and additional documents will be made available via established networks, and liaison will continue with these.
Aboriginal and Torres Strait Islander peoples

In June 2016, it was estimated that 798,400 Aboriginal and Torres Strait Islander peoples were residents of Australia, or 3.3% of the total Australian population. The largest populations of Aboriginal and Torres Strait Islander Australians lived in NSW (265,685 people), or 3.4% of the estimated NSW resident population.

Of the 35,610 episodes of inpatient rehabilitation care reported in 2017–18, 475 episodes were reported for Indigenous peoples (NSW Health data).

By its very nature, rehabilitation adopts a biopsychosocial model which works with, and recognises, the individual within their context and uses a person-centred approach. Multiple interrelated factors contribute to the poorer health status of Aboriginal peoples. This document recognises the health disparities that exist for Aboriginal and Torres Strait Islander peoples in Australia and the need to address these. An appreciation of the social determinants of Aboriginal health, including racism, intergenerational trauma, interruption of culture, dispossession, housing, education, environmental factors, employment, and cultural and social capital is essential to closing the health gap between Aboriginal and non-Aboriginal people.

‘Aboriginal health means not just the physical wellbeing of an individual but refers to the social, emotional and cultural wellbeing of the whole community in which each individual is able to achieve their full potential as a human being, thereby bringing about the total wellbeing of their community’. A culturally respectful and responsive health system is essential to improve health outcomes for Aboriginal people and every health professional and rehabilitation service has a valuable role to play.

To be effective, rehabilitation programs need to be holistic, culturally safe and centred on respect and trust. Rehabilitation programs should ensure they consider the following components.

- Have flexibility and a person-centred approach, focusing on the specific needs of the individual.
- Develop ways to build trust and relationships with patients, noting the importance of yarning.
- Develop rehabilitation programs for use by the whole family.
- Have both male and female Aboriginal health staff if possible.
- Provide participants with culturally appropriate information about managing their ongoing rehabilitation needs, including local content on who to access for post-discharge services.
- Develop cultural competencies among staff.
- Consider opportunities for rehabilitation program staff to partner with Aboriginal medical services, Aboriginal health workers, Aboriginal community controlled health services and non-government organisations in the delivery of services.
The rehabilitation framework is based on a biopsychosocial understanding of the health of individuals and the community. It has the ultimate aim of maximising the quality of life of the community by maximising the health and functioning of the individuals within that community.

The NSW Health CORE values – collaboration, openness, respect, empowerment – provide the strategic framework for the values outlined in this document. In addition to the values underpinning this, there are a number of essential elements that are required to support the delivery of effective rehabilitation services.

The following are essential to successful use of this document.

- **Access and service availability** for people with rehabilitation needs.
- **Health professionals with specialist skills** who are capable of:
  - identifying and understanding the factors that limit or promote health, functioning and quality of life
  - using evidence-based interventions to achieve goals that are prioritised by the patient
  - working synergistically within teams to ensure that all the needs of each patient are addressed in a holistic way
  - recognising that patients and carers are an integral part of the team.
- **Supportive infrastructure** that provides resources which can be used to deliver clinical care as well as quality activities, research and educational programs.

The program logic model in Figure 1 should be read from bottom to top and be viewed in conjunction with the accompanying text. There are complex interdependencies between system components both within and beyond any individual rehabilitation service which should be noted.
Figure 1. A program logic model for rehabilitation

<table>
<thead>
<tr>
<th>Aims</th>
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<tbody>
<tr>
<td>Rehabilitation services contribute to the health and wellbeing of the</td>
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<tr>
<td>community through enhanced resilience in people with a disability,</td>
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<tr>
<td>enhanced community participation of people with a disability,</td>
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<td>reduced cost of social services, reduced disease burden, and reduced</td>
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<td>cost of healthcare.</td>
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<tr>
<th>Impacts</th>
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<tr>
<td>Reduced adverse impact on individuals, their networks and communities</td>
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<tr>
<td>Patient and family positive sense of self</td>
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<td>Active participation in home and community life</td>
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<td>Patient and family self-efficacy</td>
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<tr>
<th>Long Term Outcomes</th>
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<tbody>
<tr>
<td>Patient goal achievement</td>
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<tr>
<td>Patient and family feel prepared for life beyond the rehabilitation</td>
</tr>
<tr>
<td>program</td>
</tr>
<tr>
<td>Plans in place for ongoing clinical care and review</td>
</tr>
<tr>
<td>Plans in place for maintenance and improvement of health</td>
</tr>
<tr>
<td>Optimal functional independence</td>
</tr>
<tr>
<td>Patient achievement of interim clinical goals</td>
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<tr>
<td>Coping and adjustment supported</td>
</tr>
<tr>
<td>Involvement of patient’s natural supports</td>
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<tr>
<td>Timely receipt of equipment aides and technology</td>
</tr>
<tr>
<td>Optimal patient and family experience</td>
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<tr>
<td>Plans in place for social care and support</td>
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<tr>
<td>Plans in place for participation in valued activities</td>
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<tr>
<th>Short Term Outcomes</th>
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<tbody>
<tr>
<td>Patient actively involved in determining goals and treatment program</td>
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<tr>
<td>Receipt of appropriate therapy and intensity</td>
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<tr>
<td>Hope for the future is maintained</td>
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<tr>
<td>Early and ongoing active patient participation</td>
</tr>
<tr>
<td>Patient achievement of interim clinical goals</td>
</tr>
<tr>
<td>Coping and adjustment supported</td>
</tr>
<tr>
<td>Preparation for life after the rehabilitation program has begun</td>
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<tr>
<td>Involvement of patient’s natural supports</td>
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<tr>
<td>Timely receipt of equipment aides and technology</td>
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<tr>
<th>Quantifiable Outputs</th>
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<tbody>
<tr>
<td>Timely documentation of goals and rehabilitation plans</td>
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<tr>
<td>Timely use of standardised functional measures</td>
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<tr>
<td>Optimal length of time in program</td>
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<tr>
<td>Routine documentation of patient outcome measures</td>
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<tr>
<td>Regular patient and staff feedback</td>
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<tr>
<th>Core Activities</th>
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<tbody>
<tr>
<td>Person centred assessment, treatment, education, and care</td>
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<tr>
<td>Coordinated goal directed synergistic teamwork</td>
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<tr>
<td>Therapeutic interventions promoting recovery, adaptation, compensation,</td>
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<tr>
<td>and prevention.</td>
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<tr>
<td>Enabling self management</td>
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<tr>
<td>Providing a facilitatory environment</td>
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<tr>
<th>Foundation Activities</th>
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<tr>
<td>Equitable and transparent access to rehabilitation programs</td>
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<tr>
<td>Adherence to safety and quality standards</td>
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<tr>
<td>Collaboration with key stakeholders</td>
</tr>
<tr>
<td>Community education</td>
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<tr>
<td>Education, training and research</td>
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<tr>
<th>Foundation Inputs</th>
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<tbody>
<tr>
<td>Health professionals who respect and understand rehabilitation</td>
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<td>Flexible rehabilitation settings</td>
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<tr>
<td>Adequate funding allocation</td>
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<tr>
<td>Leadership</td>
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<tr>
<td>Appropriate environment and equipment</td>
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Rehabilitation values

The program logic model details the rehabilitation values, which are the beliefs that determine the attitudes and behaviours of the people who deliver rehabilitation services. Collectively, these values inform the planning of rehabilitation services and how those services operate. Enacting these values creates an environment and culture where person-centred rehabilitation flourishes.40

A literature review and expert opinion consultation, together with discussions at the 2017 forums, determined the following values are regarded important at all levels.41–48

- Respecting the individual and their individual circumstances.
- Working within respectful relationships.
- Promoting hopefulness and resilience.
- Fostering self-determination.
- Harnessing the lived experience of disability as a valuable resource.
- Appreciating community needs and priorities for health and rehabilitation.
- Recognising that biopsychosocial factors influence health and functioning.

Building blocks

The program logic model also details the building blocks required for rehabilitation, as determined through a literature review, expert opinion consultation, forum discussions and public consultation. The building blocks are the preliminary requirements which need to be in place for a rehabilitation service or program.

Foundation inputs and activities

There are two types of building blocks that require organisational responsibility: foundation inputs and foundation activities. Foundation inputs include all the resources that contribute to the production and delivery of rehabilitation; while foundation activities refer to the processes or activities required to enable rehabilitation service delivery. Without consideration and planning for these aspects, the effectiveness of the rehabilitation service or program may be compromised.

<table>
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<tr>
<th>Foundation inputs</th>
<th>Foundation activities</th>
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<tbody>
<tr>
<td><strong>Leadership</strong>, which is displayed at all levels, provides a strategic and operational direction and a commitment to the core values of rehabilitation</td>
<td>Adherence to the National Safety and Quality Health Service Standards51</td>
</tr>
<tr>
<td><strong>Adequate funding</strong> allocation</td>
<td>Provision of publicly available information to the community on the nature and scope of available rehabilitation programs</td>
</tr>
<tr>
<td><strong>Appropriate skill mix</strong> of health professionals who understand and enact the values of rehabilitation</td>
<td><strong>Equitable and transparent access</strong> to rehabilitation programs and settings</td>
</tr>
<tr>
<td><strong>Availability of a wide range of flexible rehabilitation service settings</strong></td>
<td><strong>Staff engagement in rehabilitation education, training and research</strong> is encouraged, valued and facilitated</td>
</tr>
<tr>
<td><strong>Appropriate environment and equipment</strong> to facilitate better rehabilitation outcomes</td>
<td><strong>Collaboration</strong> with users of the service, their natural supports and key stakeholders. Key stakeholders may include referrers to the service, peer support groups and service providers in the next phase of the rehabilitation care continuum</td>
</tr>
</tbody>
</table>
Core rehabilitation activities

The core rehabilitation activities work in combination with the organisational building blocks to:
- produce the service outputs
- facilitate patient outcomes and impacts
- reduce unwarranted clinical variation.
Individually and collectively these activities are the key enablers of optimal rehabilitation.

Person centred assessment, treatment, education and care

Assessment incorporates the discovery of what is important to the person (their values: valued activities, people, places and beliefs) along with the biological, psychological, social and spiritual aspects of the person. Treatment must be informed by the person’s values when addressing the biopsychosocial aspects of care. Rehabilitation care is optimised when all of these aspects are addressed within a teaching and learning framework, because rehabilitation is an educational process that must take into account personal and environmental factors of relevance to the individual.

Coordinated goal directed synergistic teamwork

Teamwork draws on the strengths, skills and expertise of all members of the rehabilitation team by engaging in respectful relationships to maximise the outcomes valued by the person. By working in a synergistic and coordinated manner the team produces something greater than the sum of its parts. The rehabilitation team includes, but is not limited to, the patient, their valued others and various health professionals. The outcomes valued by the person are the goals that guide the rehabilitation effort.

Therapeutic interventions promoting recovery, adaptation, compensation and prevention

Rehabilitation care is optimised when the full range of treatment approaches are considered for each and every patient. This includes therapeutic interventions promoting recovery, adaptation, compensation and prevention.
- Recovery refers to the process of returning towards pre-morbid state or better.
- Adaptation includes changing what or how things are done to complete a task or process successfully, as well as psychosocial adjustment.
- Compensation refers to using an alternate strategy to achieve the same outcome.
- Prevention has a key role in minimising the risk of adverse events or poor outcomes.

Enabling self-management

Enabling self-management maximises the health and well-being of the person. Self-management is enabled through a range of mechanisms which may include the provision of education and information, peer support, the development of problem solving skills, cognitive approaches and coaching.

Providing a facilitatory environment

The environment can facilitate the process and outcomes of rehabilitation. The physical, social, and attitudinal aspects of the environment must be considered for this to occur.

Quantifiable outputs of rehabilitation

Quantifiable outputs of rehabilitation are service outputs that can be measured numerically and form one aspect of key performance indicator reporting.

Regular patient feedback

Regular patient feedback in the form of patient satisfaction, patient reported experience measures and patient reported outcome measures provide the consumer perspective on the quality of the service.

Timely documentation of goals and rehabilitation plans

A timely and clearly documented rehabilitation plan informed by the person’s values and goals is fundamental to rehabilitation service effectiveness and efficiency.
Timely use of standardised functional measures
The timely use of standardised measures of function is fundamental to monitoring patient progress. A range of measures may be used with individual patients. When reporting program indicators, standardised functional measures should be used.

Routine documentation of patient outcome measures
Routine documentation and review of patient outcome measures assist with ensuring the quality of the service provided.

Optimal length of time in program
The optimal length of time spent in any rehabilitation program is influenced by numerous factors including availability of services, policy and funding variables, individual personal factors, organisational factors and research evidence. Benchmarking is one practice that can be used to reduce unwarranted clinical variation.

Regular staff feedback
Staff feedback can take many forms including staff satisfaction surveys, staff rounding, and staff retention rates. This provides the staff perspective on the quality of the service. Staff satisfaction generally correlates with quality care.53

Short term outcomes
These are within rehabilitation program patient outcomes. Collecting information on patient outcomes during the rehabilitation program provides evidence that the core influencing activities are taking place in line with the rehabilitation values. Qualitative and quantitative methods can be used to measure these outcomes.

• Patient actively involved in determining goals and treatment program.
• Early and ongoing active patient participation.
• Receipt of appropriate therapy and intensity.
• Involvement of patient’s natural supports.
• Patient achievement of interim clinical goals.
• Coping and adjustment is supported.
• Hope for the future is maintained.
• Preparation for life after the rehabilitation program has begun.
• Timely receipt of equipment, aides and technology.

Long term outcomes
These are end of rehabilitation program patient outcomes.
Collecting information on patient outcomes at the conclusion of a specified rehabilitation program provides evidence that the core influencing activities have been effective.
Using a combination of qualitative and quantitative methods, the following outcomes can be measured.
• Patient goal achievement.
• Optimal functional independence.
• Patient and family experience.
• Patient and family preparation for life beyond the rehabilitation program.
• Plans in place for:
  – ongoing clinical care and review
  – the maintenance and improvement of health
  – social care and support
  – participation in valued activities.

Impacts
Longer term impacts on the individual beyond the specific rehabilitation program.
Ultimately, success of a rehabilitation program is reflected in the impact it has on the lives of individuals after completion of the program. This includes the patient and their valued others.
Measures to capture longer term impacts should reflect the influence of multiple variables such as environmental and personal factors in contributing to these longer term impacts.54
• Reduced adverse impact of disability on individuals, their networks, and communities.
• Patient and family positive sense of self.
• Active participation in home and community life.
• Patient and family self-efficacy.
• Reduced dependence on health and social services.

Aims
The broader aims of rehabilitation are to contribute to the health and wellbeing of the community through:
• enhanced resilience in people with disability
• enhanced community participation of people with disability
• reduced cost of social services
• reduced disease burden
• reduced cost of healthcare.
The measurement of these is beyond the scope of individual rehabilitation services.
It is envisaged that this document will inform the establishment of new rehabilitation services and the development of existing rehabilitation services in NSW. An important aspect of this work is the development of measures for inputs, activities, outputs and outcomes as noted in the program logic. Initially, this needs to be done separately for each rehabilitation setting. Comparisons across settings will help identify if a core set of measures can be identified. Appendix 1 and 2 contain additional information that could be used to inform the development of these measures.

Unmet rehabilitation needs can ‘delay discharge, limit activities, restrict participation, cause deterioration in health, increase dependency on others for assistance, and decrease quality of life. These negative outcomes can have broad social and financial implications for individuals, families, and communities’ (p.102). Data on the need for rehabilitation services and estimates of unmet need do not exist, or are often incomplete and fragmented. When data are available, ‘comparability is hampered by differences in definitions, classifications of measures and personnel, populations under study, measurement methods, indicators, and data sources’ (p.102). Designing metrics, performing data analysis and obtaining benchmarking information will help to identify areas of unmet need. Ideally, this work would be done in collaboration with rehabilitation services. Working in this way will ensure the relevance of the measures as well as help test the relevance of the principles across rehabilitation service types and geographical settings. By its very nature, a theoretical framework continues to evolve over time; hence periodic review of this document has been scheduled.

Concurrently, the ACI Rehabilitation Network is committed to developing information for each of the rehabilitation care settings to provide additional and more detailed guidance for the establishment and operation of these services. This will outline best practice care for patients being treated in the care setting and outline the current evidence base, case for change and associated economic appraisal. Material will be developed for the six rehabilitation settings as listed below.

- in-reach
- inpatient
- outreach
- ambulatory care
  - outpatient
  - day hospital
  - home-based.

Next Steps

ACI Rehabilitation Network – Principles to Support Rehabilitation Care
Acknowledgements

Creation
The ACI would like to acknowledge the contribution of the working group members, who were involved in the creation of this document during an 18-month period from 2015 to 2017.

<table>
<thead>
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</thead>
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Consultation
ACI is grateful to the many members of the Rehabilitation Network who participated in the workshops that helped inform the principles and those who participated in the consultation process to review draft versions of this document.

ACI also wishes to thank its consumer representatives for their valuable input during the focus group workshop hosted during the creation. The involvement and willingness of all in sharing their expertise and experiences are greatly appreciated.

Development
The ACI would like to acknowledge the contribution of the working group who further developed this document during 2018–19.

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<td>(from August 2018)</td>
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ACI would also like to provide special thanks to the members of the ACI Aboriginal Chronic Conditions Network who participated in the consultation process to review the draft document.
## Glossary

<table>
<thead>
<tr>
<th>Word</th>
<th>Description</th>
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<tbody>
<tr>
<td>Activities</td>
<td>The processes or actions that use inputs to produce the desired outputs, and ultimately outcomes.</td>
</tr>
<tr>
<td>Biopsychosocial</td>
<td>Relating to, or concerned with, the biological, psychological, and social aspects in contrast to the strictly biomedical aspects of disease.</td>
</tr>
<tr>
<td>Foundational activities</td>
<td>Combined with the foundational inputs, foundational activities make rehabilitation service delivery possible.</td>
</tr>
<tr>
<td>Foundational inputs</td>
<td>The building blocks of the rehabilitation program. These are the preliminary requirements that need to be in place before implementing a rehabilitation program.</td>
</tr>
<tr>
<td>Impacts</td>
<td>The results of achieving specific outcomes, usually longer term and may be years or more. These are the consequences once an outcomes is achieved and may be desirable or undesirable, anticipated or unanticipated. They are the changes that occur beyond the specific program targets.</td>
</tr>
<tr>
<td>Influencing activities</td>
<td>The core activities that bring about outputs and outcomes.</td>
</tr>
<tr>
<td>Inputs</td>
<td>Describe the ‘what’ and ‘who’ is used to do the work. It includes all the resources that contribute to the production and delivery of outputs.</td>
</tr>
<tr>
<td>Key stakeholders</td>
<td>A stakeholder is anyone who can affect, or is affected by, the program. They may be recipients, providers, internal or external. Key stakeholders are those who can influence the direction or priorities of the program, including participants and program sponsors.</td>
</tr>
<tr>
<td>Formal supports</td>
<td>Usually involve some form of payment for services and includes relationships with service providers.</td>
</tr>
<tr>
<td>Natural supports</td>
<td>Are personal relationships and associations that occur in everyday life and enhance the quality and security of life for people.</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Are the changes that come about through inputs and activities. They may be quantifiable. They are the medium-term results for specific beneficiaries that are the consequence of achieving specific outputs.</td>
</tr>
<tr>
<td>Outputs</td>
<td>Are the final products, goods and services produced. They are usually quantifiable and measurable.</td>
</tr>
<tr>
<td>Patient</td>
<td>The term patient is used throughout this document to describe the person receiving the rehabilitation intervention, however resident, client, individual or participant may be substituted.</td>
</tr>
<tr>
<td>Program logic</td>
<td>A simplified representation in diagrammatic form of a set of causal assumptions.</td>
</tr>
<tr>
<td>Program theory</td>
<td>An explicit theory or model of how an intervention contributes to a set of specific outcomes through a series of intermediate results. The theory includes an explanation of how the program’s activities contribute to the results. It may be a theory of change, or it may be a theory of action.</td>
</tr>
<tr>
<td>Rehabilitation program</td>
<td>Coordinated interventions and activities for an individualised documented patient rehabilitation plan which includes negotiated rehabilitation goals and indicative time frames.</td>
</tr>
<tr>
<td>Rehabilitation service</td>
<td>A rehabilitation service has the overarching responsibility for the delivery of clinical rehabilitation programs and is led by a clinician with specialist skills in rehabilitation.</td>
</tr>
<tr>
<td>Rehabilitation settings</td>
<td>These are the care settings or environments in which rehabilitation programs are delivered. The setting in which rehabilitation occurs is principally defined by the person’s changing needs over time and service availability.</td>
</tr>
<tr>
<td>Resources</td>
<td>Resources refer to both material and human resources.</td>
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<tr>
<td>Word</td>
<td>Description</td>
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<tr>
<td><strong>Self-efficacy</strong></td>
<td>An individual’s belief in their capability to succeed in a certain situation or accomplish a task. Self-efficacy influences how people set their health goals.</td>
</tr>
<tr>
<td><strong>Sense of self</strong></td>
<td>How you regard yourself, including an understanding of your qualities, strengths and personal attributes, all of which can be impacted by disability.</td>
</tr>
<tr>
<td><strong>Synergistic</strong></td>
<td>The interaction of team members that when combined produce a total effect that is greater than the sum of the individuals.</td>
</tr>
<tr>
<td><strong>Theory of action</strong></td>
<td>How programs or interventions are constructed to activate their theory of change. It explains the activities that will be undertaken and what level of success will be needed for each outcome to produce the final intended results. It describes how the theory of change is implemented and is primarily staff focussed.</td>
</tr>
<tr>
<td><strong>Theory of change</strong></td>
<td>A description of the mechanism by which change comes about for the individual, group or community. The theory of change describes the change that rehabilitation will bring about for the participant including the changes in people which occur as a result of participating in rehabilitation.</td>
</tr>
<tr>
<td><strong>Valued relationships and activities</strong></td>
<td>People and activities that are important to the person.</td>
</tr>
<tr>
<td><strong>Values</strong></td>
<td>Beliefs which influence a person’s attitudes and behaviours. They serve as a broad guideline in all situations.</td>
</tr>
</tbody>
</table>
References


26. NSW Agency for Clinical Innovation. NSW Paediatric Rehabilitation Model of Care. (In development)
36. Ware V. Improving the accessibility of health services in urban and regional settings for Indigenous people. Closing the Gap Clearinghouse; 2013.
Further reading


## Appendix 1: Core activities

<table>
<thead>
<tr>
<th>Core activity</th>
<th>Descriptor</th>
<th>Indicators</th>
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</thead>
</table>
| **Person-centred assessment, treatment, education and care**                 | • The person is encouraged and facilitated to articulate their valued activities and relationships  
• Assessment incorporates the discovery of what is important to the person (their values – valued activities, people, places and beliefs) along with the biological, psychological and social aspects of the person  
• Treatment is informed by the person’s values when addressing the biopsychosocial aspects of care  
• Education is tailored to the needs of the individual | • The rehabilitation plan includes evidence of assessment, treatment, goals and outcomes that reflect person-centred biopsychosocial factors  
• Valued people, activities and beliefs are reflected in person-centred rehabilitation goals and documented on the rehabilitation plan  
• The service seeks feedback from the person and their valued others that demonstrates their involvement in the development of the rehabilitation plan  
• Evidence of tailored education provision is documented in the healthcare record |
| **Coordinated, goal-directed, synergistic teamwork**                         | • Teamwork draws on the strengths, skills and expertise of all members of the rehabilitation team by engaging in respectful relationships to maximise the outcomes valued by the person  
• The rehabilitation team includes but is not limited to the patient, their valued others, and health professionals  
• The outcomes valued by the person are the goals that guide the rehabilitation effort | • Rehabilitation plan directs activity and provides evidence of team working and sharing goals  
• Team explicitly includes the values of the person and their valued others in the rehabilitation plan  
• The person directs and is engaged in the rehabilitation plan  
• All disciplines contribute to achievement of all goals  
• There is a structured approach to team development |
| **Therapeutic interventions promoting recovery, adaptation, compensation and prevention** | • The full range of treatment approaches are considered for the person. This includes therapeutic interventions promoting recovery, adaptation, compensation and prevention | • Maintenance of evidence-based clinical knowledge and training through both team based and discipline specific professional development  
• Application of clinical guidelines where they exist |
| **Enabling self-management**                                                  | • Self-management is enabled through a range of mechanisms which may include the provision of education and information, peer support, the development of problem solving skills, cognitive approaches and coaching | • Person directed goal setting  
• The person and their valued others are involved in decision making about which approach to take  
• The person and their valued others are coached to facilitate decision making  
• There are opportunities to discuss expectations with the person and their valued others  
• Enablement of peer support |
| **Providing a facilitatory environment**                                     | • The physical, social and attitudinal aspects of the environment are considered | • Service processes that facilitate active patient engagement  
• Positive physical and attitudinal environment that facilitates goal achievement  
• Rehabilitation environment provides opportunities to extend personal expectations  
• Psychosocial support is available for the person and their valued others |
### Appendix 2: Quantifiable outputs

<table>
<thead>
<tr>
<th>Output</th>
<th>Descriptor</th>
<th>Indicators</th>
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</thead>
</table>
| Regular patient feedback              | • Positive patient feedback in the form of patient satisfaction, patient experience and patient outcome measures provide the consumer perspective on the quality of the service | • Routine collection of patient satisfaction measures  
• Routine collection of staff satisfaction measures  
• Routine collection of patient reported measures                                                   |
| Timely documentation of goals and rehabilitation plans | • A timely and clearly documented rehabilitation plan informed by the person’s values and goals is fundamental to rehabilitation service effectiveness and efficiency | • Routine audits of rehabilitation plans                                                                                           |
| Timely use of standardised functional measures | • The timely use of standardised measures of function is fundamental to monitoring patient progress                                                                                       | • Routine documentation audits for use of standardised measures of function based upon an agreed set of standardised measures |
| Routine documentation of patient outcome measures | • Routine documentation and review of patient outcome measures assists with ensuring the quality of the service provided                                                      | • Routine compliance audits to determine compliance with use of patient outcome measures  
• Regular review of patient outcome achievement                                                        |
| Optimal length of time in program     | • The optimal length of time spent in any rehabilitation program will be influenced by numerous factors including availability of services, policy and funding variables, individual personal factors, organisational factors, and research evidence | • Regular review of length of stay against benchmarks or goal length of stay                                                                  |
| Regular staff feedback                | • Staff feedback can take many forms including staff satisfaction surveys, staff rounding, and staff retention rates. This provides the staff perspective on the quality of the service. Staff satisfaction correlates with quality care | • Regular staff feedback surveys and review of survey results                                                                                       |