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# The Statewide Brain and Spinal Cord Injury (BaSCI) Project

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Service Improvement

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## Summary

The Statewide Brain and Spinal Cord Injury (BaSCI) project will implement key actions in the *Statewide adult brain injury rehabilitation health service plan 2016-2026* and the *Statewide adult spinal cord injury health service plan 2016-2026* to support standardised access to services and improve data collection to enable considered service monitoring and ongoing improvement.

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Additionally, models to improve access to specialist rehabilitation services will be implemented by participating Hospital and Health Services (HHSs) across the state. These will overcome existing barriers and boost service and system capability and capacity. For more information about the program and its initiatives, contact [BaSCI@health.qld.gov.au](mailto:BaSCI@health.qld.gov.au).

## Key dates

Jul 2021

Jun 2025

## Implementation sites

Townsville HHS, Sunshine Coast HHS, Metro North HHS, Metro South HHS, Gold Coast HHS.

## Partnerships

Six Hospital and Health Services

## Key Contacts

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## Aim

The Statewide BaSCI Project aims to improve health services and patient outcomes for people with acquired brain and/or spinal cord injuries in Queensland requiring adult specialist rehabilitation care. By providing timely access to safe and quality networked care that is closer to home patients will transition to the community in a supported way with improved outcomes and experiences. By providing timely access to safe and quality networked specialist rehabilitation care, patients will transition to the community and home in a supported way with improved outcomes and experiences.

## Benefits

- increased capacity and capability of specialist rehabilitation, transition and outreach services
- earlier and equitable access to these services, regardless of where a patient lives
- improved coordination, consistency and standardisation of care processes
- developing partnerships between clinicians and services across the state to deliver better care
- better communication about care options and expectations and improved patient experience
- growing a network of expert clinicians across the state
- enhanced data collection, which assists in improving outcomes, efficiency and effectiveness of care.

## Background

Brain and spinal cord injuries are complex and life-altering. When an injury occurs, timely access to quality, specialised rehabilitation has been shown to support patients' recovery and quality of life. In Queensland, the highly specialised and resource-intensive rehabilitation services that are required for these injuries have been provided by the Princess Alexandra Hospital (PAH) in the Metro South Hospital and Health Service (HHS). Spanning adult inpatient rehabilitation, transitional rehabilitation, and specialist community rehabilitation, a high-quality continuum of care has been established and delivered by the PAH. To expand these vital specialised rehabilitation services across Queensland, \$24 million in funding was received from the Commonwealth Community Health and Hospitals Program (CHHP) in 2020. Guided by the *Statewide adult brain injury rehabilitation health service plan 2016-2026* and the *Statewide adult spinal cord injury health service plan 2016-2026*, the BaSCI project is partnering with Hospital and Health Services to improve adult brain and spinal cord injury rehabilitation services in Queensland.

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## Solutions Implemented

### System level actions underway:

- Referral to a specialist spinal cord injury unit within 24 hours of injury is associated with better outcomes for patients. However, complex system issues have seen extended waiting times for admission to the single Spinal Injuries Unit in the Princess Alexandra Hospital in Queensland.
- To improve timely access to specialist care, BaSCI has supported partnerships across the state between the statewide service provided by Queensland Spinal Cord Injuries Service (QSCIS) at Metro South HHS and other care providers managing people with newly acquired spinal cord impairment.

### QuickStart

A new service arm in the QSCIS offering enhanced clinical support to teams outside the specialist unit through the initiation of a statewide SCI in-reach team providing early specialist consultancy advice and planning. **Website** A new website to support health professionals in acute care, rehabilitation, and community settings in the management of spinal cord injury:

<http://qscis.health.qld.gov.au>. **New services** Supporting the development of a multidisciplinary North Queensland Spinal Cord Injury Service (NQSCIS) in Townsville to improve access to safe, quality care for people in North Queensland. **Providers network** Establishing a network of providers across the state with specialist spinal cord injury clinical portfolios who are working directly with the QSCIS statewide service, including:

- Gold Coast Spinal Cord Liaison Service
- Metro North Spinal Team
- Sunshine Coast Clinical Nurse Consultant.

**Acquired brain injury support** Acquired brain injury (ABI) affects approximately 1 in 45 Australians. Severity can vary from mild through moderate to severe, and ABI-related disability can affect cognitive, physical, emotional and independent functioning. The care and rehabilitation required for recovery is complex, specialised and long-term, with input from a range of health care professionals from acute care to inpatient rehabilitation and community settings. The BaSCI Project is building on the established model of the Brain Injury Rehabilitation Service (BIRS) and investing in initiatives across the continuum of care to support Queenslanders with recovery closer to home, closer to family support and closer to the communities within which they live. Clinic Service Pilots being delivered in the HHSs:

- Townsville: Concussion clinic, ABI Multidisciplinary Follow-up Service, Culturally Safe Rehabilitation
- Sunshine Coast: Neuro-Intensive Rehabilitation Service, Complex Concussion Clinic, Hypertonicity Service
- Metro North: Specialised ABI Inpatient Rehab and Expanding Scope of Services project, Prolonged Disorders of Consciousness, Acute Disorders of Consciousness, Specialised Ambulatory Project, Hospital to Home
- Metro South: Acute ABI In-reach Project, Hybrid Transition Community Model, Concussion Service
- Gold Coast: Behaviour Support Program, Specialist ABI Outpatient Model

All five implementation sites are partnering on a networked specialist ABI community rehabilitation

## Evaluation and Results

A full evaluation of the implementation and outcomes of the Statewide BaSCI Project will be undertaken April - June 2025. Early results of collected data show QuickStart for Spinal Cord Injury has significantly decreased the waiting time for access to specialist SCI care for patients with newly acquired injuries through early consultation, liaison and planning. Additionally, a proportion of referred patients have been successfully transitioned to the community from their referring facility, avoiding the need to travel for inpatient care and allowing them access to specialist expertise and support from QSICS while remaining close to their family and community. Furthermore, the range of strategies being implemented to Expand Specialist Acquired Brain Injury Rehabilitation in Queensland have impacted the way patients are moving through the system and enabling provision of specialist care closer to home including earlier transitions to non-admitted and community models that support patients out of hospital and closer to their home and support networks.

## Lessons Learnt

To date the role of partnerships between service providers is a critical enabling factor for the project. Continued investment in actions to build collaboration will be supported by the project. **Case studies**

**Brad's story of supported specialist spinal cord injury care** Brad had been living in his car when he was involved in a significant motor bike accident that saw him taken to the Gold Coast University Hospital. The crash resulted in multi-trauma injuries, including brain and spinal cord injuries that required immediate acute care. It was projected he'd need to be transferred to the Spinal Injuries Unit (SIU) for specialist rehabilitation. Brad's shock, trauma and injuries made his hospital stay incredibly challenging. In his third week at the hospital, the Gold Coast Spinal Cord Injury Liaison Service (SCILS) was established, creating a new range of support options for Brad. The SCILS team quickly identified Brad on the acute ward and offered consistent support to help him build an understanding of his injuries, the care he was receiving and his rehabilitation path ahead. Due to his complex injuries, and bed availability at the specialist unit, Brad faced a waiting time of eight weeks for transfer to the Princess Alexandra Hospital in Metro South HHS. Throughout the waiting time the expertise of the statewide Spinal Cord Injuries Service (QSCIS) was engaged through the new QuickStart in-reach specialist SCI team. They worked directly with Brad and in partnership with the SCILS service at the Gold Coast to ensure timely and accurate information was communicated clearly to Brad about his injuries, care and expectations for next steps. The SCILS provided daily on the ground support that was previously never available to patients waiting for an admission to the SIU. And QuickStart ensured an important link to the specialist services at PAH. Importantly for Brad, these early planning consults meant QuickStart initiated contact with the Department of Housing to ensure early notification of his injury and care needs were communicated and plans established for preparation of safe and appropriate accommodation. Brad was transferred to the SIU and stayed 27 weeks. When he was well enough, the QSCIS Transitional Rehab Program supported his move to modified accommodation secured by the Department of Housing with assistive technology, meaning he could transfer from hospital to home safely. When Brad ended up back in

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hospital within a week due to unforeseen complications, the SCILS team were once again able to provide support - this time, by directly connecting Brad to a known local specialist team who could also link to his community providers. Brad says, *"It was a relief when the Gold Coast Spinal Cord Injury Liaison Service (SCILS) service started. Everything was explained to me in a way that I could actually understand, and prepared me for my rehab at the Spinal Injuries Unit (SIU) from day one. QuickStart would come and see me, but due to my brain injury, I found it hard to remember. SCILS could remind me and continue to explain things. And when I got suddenly sick after going home, it was very nice to see the SCILS team. I immediately felt better knowing they would still be involved in my care, and that they are working with my community providers in case I need extra support when I go home."*

**Improving quality of life for people with complex brain injuries** Patients who experience a prolonged disorder of consciousness (PDOC) following profound brain injury pose a complex array of clinical and ethical challenges for both the individuals and health care systems responsible for their care. While this specific acquired brain injury (ABI) patient cohort is relatively low in number, their needs create a substantial financial, emotional, and societal impact. Due to their extreme vulnerability and complete dependence on others, a duty exists to promote their interests and strive towards a quality of life that would be acceptable to them. Metro North BaSCI have undertaken projects to enhance both the acute and subacute hospital experience and outcomes, and an opportunity remains for a sustainable statewide approach to whole-of-life care for people with these complex injuries. *"We now have clear criteria-led decision-making to support the optimisation of our patients' rehabilitation. Families can see the goals and trajectory of recovery and we can better support them through the process."* – Brighton Brain Injury Service team member.

**Specialist ABI rehabilitation close to home** When Kerese Amato-Ali suffered a large intracranial haemorrhage in the months before his wedding, he was taken to Brisbane's Royal Brisbane and Women's Hospital in Metro North for immediate treatment. After seven days, he was transferred back to the Sunshine Coast University Hospital and eventually offered a place in the new Neuro-intensive Rehabilitation (NIR) service developed under the Statewide BaSCI Project. *"It's really good to be home from hospital – and still able to get all my care - especially when you are young like me. It gave me an extra boost mentally to be with my son and partner each night. And I knew all the people in the team and they are all so great. They know what I need to do and how to get it out of me,"* said Kerese about his time in the clinic. *"We had a direct line of contact and knew who to call and I was able to be involved the whole time which I really valued,"* said his partner Jess. Dr Neala Milburn is the BaSCI Clinical Lead in the Sunshine Coast, and notes the importance of care close to home. *"It's great for patients and it's fantastic for carers and families. Not only is the disruption from family separation through relocation for Brisbane-based specialist therapy removed but we find that the return to home is a huge transition and the support for carers in the days and weeks after a patient comes home is a huge benefit of this service. We are wrapping around the whole person and supporting them with each of the new stages of their recovery. As a physician, it's incredibly rewarding working in this team and being a part of this."* *"I wanted to walk down the aisle at my wedding, six weeks after my stroke,"* says Kerese of his rehabilitation goals on entering the NIR service at Sunshine Coast. *"But I did more than that,"* he smiles. *"I danced."*

**Culturally safe rehabilitation at Townsville** With the support of BaSCI funds, the Townsville Rehabilitation Unit (TRU) partnered with First Nations community and health service representatives, to co-design a culturally safe model of rehabilitation for First Nations patients that works towards health equity. The unit is now implementing 18 cultural safety actions and encourages other services to do the same. For George\*, who is undergoing rehab for an acquired brain injury, therapy is delivered through regular yarning sessions for aphasia and communication training, his cognitive and mobility training focuses on being outdoors doing the garden work he enjoys, and he is supported to engage in painting and drawing in his downtime. George says this approach to rehab has helped him to engage in therapies and it *"keeps me doing something good for myself."* Indigenous Hospital Liaison Officer, Earl Mazzoni, provides the much-needed cultural support for First Nations patients like

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George, helping to build trust and rapport, and to empower individuals in their health journey. Earl supports the rehab team to engage patients in their rehab and to connect patients to the right supports to get them back to community and country. “It is great to see patients and families become comfortable and confident to talk to the rehab team members and to help rehab staff understand how to help their First Nations patients in a culturally safe manner,” Earl says. \* Not real name.

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