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

- **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 priority for the ACI is identifying unwarranted variation in clinical practice and working in partnership with healthcare providers to develop mechanisms to improve clinical practice and patient care.

Acknowledgements

The successful implementation the Vocational Intervention Program (VIP) was achieved through the commitment and collaboration of many organisations and individuals over the three-year duration of the VIP. This included the engagement of management and staff from three vocational rehabilitation providers and six Brain Injury Rehabilitation Program (BIRP) teams, 75 clients and their families, 60 employers across NSW, and the sponsoring agencies, icare, the State Insurance Regulatory Authority (SIRA) and the Agency for Clinical Innovation (ACI).

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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ABI</td>
<td>acquired brain injury (refers to any damage to the brain that occurs after birth)</td>
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<td>ACI</td>
<td>NSW Agency for Clinical Innovation</td>
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<td>BIRD</td>
<td>Brain Injury Rehabilitation Directorate, ACI</td>
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<td>BIRRG</td>
<td>Brain Injury Rehabilitation Research Group</td>
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<td>BIRP</td>
<td>NSW Brain Injury Rehabilitation Program</td>
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<tr>
<td>DES</td>
<td>Disability Employment Services</td>
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<tr>
<td>icare</td>
<td>Insurance &amp; Care, NSW (delivering insurance and care services to the people of NSW severely injured in the workplace or in motor vehicle accidents)</td>
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<tr>
<td>NDIS</td>
<td>National Disability Insurance Scheme</td>
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<td>JWCRR</td>
<td>John Walsh Centre for Rehabilitation Research</td>
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<tr>
<td>PTA</td>
<td>Post-traumatic amnesia (period of confusion following brain trauma; commonly used as a measure of injury severity)</td>
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<tr>
<td>RTW</td>
<td>Return to work</td>
</tr>
<tr>
<td>SIRA</td>
<td>State Insurance Regulatory Authority (responsible for regulating workers’ compensation insurance, motor accidents compulsory third party (CTP) insurance and home building compensation insurance in NSW)</td>
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<tr>
<td>TBI</td>
<td>Traumatic brain injury (acquired brain injury incurred through trauma)</td>
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<td>VIP</td>
<td>Vocational Intervention Program</td>
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<td>VPP</td>
<td>Vocational participation project</td>
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<td>VR</td>
<td>Vocational rehabilitation</td>
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Executive summary

The Vocational Intervention Program (VIP) was a three-year multi-centre trial of two employment pathways within the NSW Brain Injury Rehabilitation Program (BIRP), in partnership with three selected vocational rehabilitation providers. The pathways were:

- **Fast Track** – an early intervention approach for clients able to return to pre-injury employment with the same employer (n=29)
- **New Track** – a 12-week work training placement to explore work potential (n=46).

The sites that participated in the VIP were:

- Sydney metropolitan region – Ryde and Westmead BIRPs partnered with Break Thru (New Track pathway) and Keystone Professionals (Fast Track pathway)
- NSW North Coast region – Mid-north coast BIRP (Coffs Harbour and Port Macquarie) and Northern BIRP (Ballina) were partnered with CHESS for both interventions
- Western NSW region – A Bathurst BIRP (mid-Western) and Dubbo BIRP were partnered with Break Thru.

Key elements of the VIP

The key aspects of the VIP were beyond standard practice. The focus was on:

- local service partnerships between BIRP and vocational rehabilitation provider teams, to create referral channels, sharing of information and effective case coordination
- acquired brain injury (ABI) specific resources (such as service protocols, assessment tools, report and formats, etc.), which contributed to the development of expertise
- a client-centred and flexible approach to service delivery
- opportunities for inter-agency knowledge sharing through the steering committee.

Program demand and pathway dispersal

The VIP achieved its target of 78 referrals and 75 BIRP clients participated in the VIP within the intended timeframe. Prior to the VIP, it was estimated there would be 42 referrals to Fast Track and 36 referrals to New Track. However the actual referrals differed from estimates, with only 29 Fast Track and 46 New Track participants.

Participation in the program

The VIP was a voluntary program. Vocational rehabilitation providers highlighted the high level of motivation of the clients and their employers, with just a few exceptions. Similarly, employers were very willing to engage in the return to work (RTW) process, though in most cases they were not mandated to do so.

Clients were referred to the New Track pathway if they did not have the option to return to previous employment and were unable to pursue paid work. These clients were more disadvantaged than those participating in Fast Track. On average, they were younger with lower levels of education, a longer time post injury (mean of 61 months compared with five months), and higher level of disability.

VIP outcomes

For the Fast Track pathway:

- Twenty-nine clients commenced Fast Track; six dropped out during the RTW process and 23 completed the program.
- For all 23 clients who completed Fast Track, their job titles remained unchanged. There was only one participant who was allocated to a different role within her pre-injury employer (however, she dropped out of the program prior to completion).
- At the point of case closure (six months after commencing RTW), 22 (out of 29) participants were working, constituting a RTW rate of 76%.
- Compared with pre-injury status, there was a notable shift from full-time to part-time work at case closure, with full-time work reducing from 23/27 (85%) to 6/27 (22%). It is expected that many people working part-time at the end of program will continue to upgrade their hours towards full-time over the following 6-12 months.

For the New Track pathway:

- Forty-six clients commenced New Track; 22 dropped out, 21 completed the program and three cases are ongoing. This dropout rate reflects the level of disability and the length of time out of the workforce (five years on average).
- Twenty-four work training placements were conducted in a range of industries, such as hospitality, aged care, warehousing, retail and garden maintenance.
- Participants gained insight into their work abilities and adjusted personal goals as a result of the placement opportunities.
• Paid work was achieved for six individuals at the end of their trials. An additional five participants continued working in a voluntary capacity and the remaining 10 participants were not working at case closure (eight individuals referred onto existing vocational programs through icare Lifetime Care, National Disability Insurance Scheme (NDIS) and the Disability Employment Services (DES) to pursue further work options).

**Key recommendations**

Following the trial, the Steering Committee recommended that the VIP upscale to a statewide service, partnering all 12 BIRP sites with local vocational rehabilitation providers (DES and private sector) to improve employment participation for people with TBI in NSW.

It was also recommended to transition to a sustainable funding model, with selected providers utilising existing funding sources, and form a statewide ABI specialist network, comprising selected providers and BIRPs to imbed expertise into service provision.
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The Vocational Intervention Program (VIP) was a ‘proof of concept’ program. The VIP model arose from the Vocational Participation Project† (VPP), which was research that identified poor return to work (RTW) experiences for people with traumatic brain injury (TBI) in NSW.

The VPP examined employment participation for community clients with TBI accessing 12 adult BIRPs (n=721). Results were as follows:

- Twenty-nine percent (207/721) of BIRP clients were in open employment at the time of the study. Although comparable with other international studies (30-35%), this is far lower than the pre-injury employment rate of 75% for this sample.
- The average timeframe of RTW commencement was seven months post injury.
- The best outcomes were associated with returning to pre-injury employment (70% of those who had achieved employment were working with pre-injury employers).
- Factors were identified that contributed to poor outcomes:
  - unemployment at time of injury
  - lower educational level (pre-injury)
  - having an extremely severe injury
  - post-injury psychosocial factors, such as substance use, challenging behaviours and emotional disturbance.
- A significant number of clients who resumed work were unable to sustain their employment (98 individuals, or 32% of those who had resumed work post injury).
- Thirty-three clients interviewed about their RTW experiences cited the following barriers:
  - injury sequelae (difficulties with fatigue, memory, mobility, concentration, mood, vision and planning/problem solving)
  - a lack of transport and job vacancies
  - a lack of understanding of the impact of ABI on work skills by employers and vocational rehabilitation providers
  - vocational rehabilitation practices driven by funding models, rather than individualised client goals.

A literature review identified three vocational rehabilitation models:

1. case coordination model
2. supported employment model (i.e. ‘place and train’)
3. program-based model (i.e. health-based therapy).

Evidence for the effectiveness of each model was limited, however expert consensus supported a hybrid approach combining elements from the three models to tailor the intensity of support for this heterogeneous population.

Vocational Participation Project recommendations

Four program recommendations resulted from the VPP:

- **Recommendation 1**
  Implement an early intervention RTW program using the case coordination model, which involves the integration of medical and vocational rehabilitation for people with good work potential.

- **Recommendation 2**
  Implement a work training program for people with no pre-injury employment option and extremely severe injury, to circumvent formal recruitment processes and promote the development of vocational skills and opportunities for achieving paid work outcomes.

- **Recommendation 3**
  Implement a trial of a group-based ‘place and train’ model that provides work crews specifically for people with extremely severe TBI who are not suited to a work trial placement in open employment.

- **Recommendation 4**
  Address the vocational rehabilitation gap for adolescents by developing and trialling a vocational transition program for school-leavers.

Recommendations 1-2 were pursued by the VIP.

---

The VIP was a joint initiative of the ACI Brain Injury Rehabilitation Directorate (BIRD) and insurance regulatory authorities: Lifetime Care and Support Authority; Motor Accidents Authority and WorkCover NSW. Following government reforms to the insurance and compensation system in NSW that occurred in 2015, these entities became icare and the State Insurance Regulatory Authority (SIRA). The BIRD supports the network of BIRPs in initiatives that enhance the outcomes for individuals, family/carers in the provision of brain injury rehabilitation in NSW.

The VIP was established to:

- trial two specific intervention pathways in three regions of NSW
- build partnerships between BIRP and selected vocational rehabilitation providers
- imbed specialist skills and resources in everyday practices to achieve better vocational pathways and outcomes for people with ABI in NSW
- form recommendations for change practices and sustainability.

Two priority areas were targeted for implementation:

1. improving job retention for people with opportunity to resume work with their pre-injury employer (the Fast Track pathway)
2. providing work training placements for people with extremely severe injury, who did not have the opportunity to resume pre-injury employment and require a ‘place and train’ approach to assess and develop work abilities (the New Track pathway).

The aim of the two interventions was to:

- promote earlier commencement of vocational activities
- improve retention of pre-injury employment
- provide new work placements in employment settings of the client’s choice
- improve quality of life and self-esteem of participants.

Brain Injury Rehabilitation Program site selection

Six of the 12 adult BIRP services were identified to partner with vocational rehabilitation providers to implement the VIP Fast Track and New Track pathways. Site selection was based on:

- evidence of need
- potential for viable caseload numbers
- BIRP team experience in engaging with local vocational rehabilitation providers and providing a mix of occupational areas (e.g. farming, professional, labouring, management and trades).

There was rural and metropolitan distribution across three regions and eight local health districts (LHDs):

- Sydney metropolitan region – Northern Sydney, South Eastern Sydney (northern part), Sydney, Western Sydney, Nepean Blue Mountains LHDs
- NSW North Coast region – Mid North Coast and Northern NSW LHDs
- Western NSW region – the eastern part of this LHD.
Vocational rehabilitation provider selection

Vocational rehabilitation providers were selected for the VIP via a tender process managed by icare lifetime care, based on the following selection criteria:

- vocational rehabilitation delivery experience
- appropriately qualified staff
- evidence of sound financial management practices (including insurance)
- compliance with National Standards for Disability standards and/or WorkCover approval status.

The three vocational rehabilitation providers selected to supply VIP services across the intervention sites were:

1. **Keystone Professionals** – a private rehabilitation provider operating across Sydney metropolitan contracted to provide the Fast Track pathway to clients of Westmead and Royal Rehab BIRPs

2. **Break Thru** – a large DES provider with offices in metropolitan and regional NSW, Queensland and Victoria contracted to provide the Fast Track pathway at the two Western NSW sites and the New Track pathway in Sydney metropolitan and at the two Western NSW sites

3. **Coffs Harbour Employment Support Service (CHESS)** – a DES provider based on the mid-north coast of NSW, specialising in mental health and contracted to provide the Fast Track and New Track pathways at the two NSW North Coast sites.

Figure 1: Vocational rehabilitation provider regions

The three regions are highlighted in dark blue.

Table 1: Brain Injury Rehabilitation Program sites and vocational rehabilitation providers

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<thead>
<tr>
<th>BIRP region</th>
<th>Fast Track</th>
<th>New Track</th>
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<td>Sydney metropolitan</td>
<td>Keystone Professionals</td>
<td>Break Thru</td>
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<td>Royal Rehab BIRP</td>
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<td>Westmead BIRP</td>
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<td>CHESS</td>
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<td>Dubbo BIRP</td>
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Key program deliverables

The following four key deliverables were achieved over the three-year term of the VIP:

1. Production of two vocational rehabilitation (VR) resources:
   - A training module and intervention guidelines about TBI for VR providers and clinicians
   - An online educational resource that can produce tailored TBI information resources for employers.

2. Development of the pathways for the two vocational rehabilitation programs:
   - Fast Track pathway – an early interface between health and VR providers to facilitate timely commencement of pre-injury employment
   - New Track pathway – providing work training opportunities and support for people with severe injury.

3. Implementation and evaluation of two vocational rehabilitation programs across metropolitan and rural locations:
   - Fast Track pathways at three regions in NSW with an estimated 42 participants
   - New Track pathways at three regions in NSW, with an estimated 36 participants.

4. Production of a final project report.
Program governance and implementation

Two committees were established to provide governance for the management of the VIP.

- **Management committee** – This committee was chaired by icare lifetime care, with representation from SIRA and the ACI. It was responsible for the appointment of vocational rehabilitation providers, expenditure approval, overall direction of the project and decision-making to address specific issues. The ACI project staff provided regular reports to the management committee. Over the course of the program, the management committee met on 15 occasions.

- **Steering committee** – This committee was chaired by the ACI, with representation from all participating BIRPs, vocational rehabilitation providers, consumer representatives, icare and SIRA team members. It monitored the ongoing performance of the program and provided a forum for case discussions and sharing of information. Initially the steering committee met on a monthly basis, which reduced to every 2-3 months once the program was established, totalling 17 occasions in total.

A project manager was recruited to oversee all aspects of service implementation. A project officer was appointed to support the data collection and analysis components of program evaluation.

VIP evaluation framework

The John Walsh Centre for Rehabilitation Research (JWCRR) was appointed as the external program evaluator. A number of evaluation components were also carried out by the ACI project team, in collaboration with Associate Professor Grahame Simpson (BIRRG Research Team Leader) at the Ingham Institute for Applied Medical Research.

The evaluation involved a prospective multi-strand approach addressing a number of research questions (see Appendix 7). A study procedures manual guided the evaluation between the two research groups.
Program implementation

Induction and establishment of partnerships
Two-day training forums were held at each VIP region in March 2015, prior to the commencement of services. The ACI conducted the training, which was attended by BIRP and vocational rehabilitation provider teams, along with icare, SIRA and JWCR representatives.

A number of BIRP clients presented their experiences of RTW post injury, supported by the Brain Injury Australia Speaker Bureau. Representatives from Centrelink also attended the North Coast and Western NSW training sessions to contribute to the discussion about how the VIP may fit with client participation requirements and assessment processes for disability support pension and DES services. The two-day forums allowed for initial discussions between BIRP and provider teams about case meeting and referral procedures.

Training participants
In total, there were 64 participants in the training sessions:
- Sydney metropolitan region – 26 participants
- North Coast region – 24 participants
- Western NSW region – 14 participants.

Training program outline
- Session 1: Background to VIP
- Session 2: Overview of TBI
- Session 3: Vocational rehabilitation practises in brain injury rehabilitation
- Session 4: VIP intervention pathways
- Session 5: Operation of the VIP
- Session 6: Program evaluation.

Intervention resources
Training manuals were developed for the training sessions. The manuals were later developed into a web-based vocational module, allowing any subsequent training with new staff to be managed remotely. General program content was made available on the website through password protected program-specific tools.

The client summary tool is a web-based tool developed for the VIP, allowing a clinician to produce tailored information about the person’s strengths, difficulties and compensatory strategies. This tool was originally developed for use by vocational rehabilitation providers to generate information for employers, but it was determined that the descriptions were too clinical for the intended audience. Instead, the tool was implemented as a means for BIRP clinicians to provide a tailored ‘client profile’ to the vocational rehabilitation provider at the time of referral.

VIP brochures (print and electronic versions) were developed to provide information about the VIP, particularly for potential participants and employers. Two employer information sheets (one about Fast Track and one about New Track) were also produced to provide information to employers about working with a person with TBI.

The city of Toronto’s Job demands analysis procedure manual: Behavioural/cognitive job demands analysis† was used by vocational rehabilitation providers when conducting workplace assessments to identify the key cognitive/behavioural job demands, in relation to the client’s functional abilities.

A number of report templates were designed as forms in Microsoft Word to create uniform reporting across providers and simplify the structure and amount of information.

Fast Track reports
- RTW assessment report
- Suitable duties plan
- Progress report
- Closure report.

New Track reports
- Vocational assessment report
- Host employer workplace assessment report
- Work training placement plan
- Progress report
- End of work training placement report
- Closure report.

Reports were completed at prescribed stages and transmitted to BIRP staff, the ACI, the participant and the employer, as appropriate.

Model of service integration

The VIP followed a model of service integration, in which services are designed according to the needs of the individual, and coordinated and delivered by a team of providers working across organisations and levels of care.

The primary service providers were the BIRP teams and the VIP providers. Processes for coordination were arranged between providers at each site and varied as the project progressed.

The Fast Track pathway

The Fast Track pathway targeted people with the opportunity and capacity to return to their pre-injury place of employment (see eligibility criteria, Appendix 1). RTW programs followed a graduated approach, tailored to the needs of each participant and employer and include strategies to manage physical and cognitive effects of injury. Participants may be working suitable duties within their pre-injury position or an alternate position.

BIRP staff referred clients to Fast Track providers at the earliest suitable time. Following contact with the employer, the provider then accepted the referral to confirm their support to proceed with RTW planning. Once the client commenced working, there was a six month phase of monitoring and upgrading the RTW program (refer to the pathway flowchart, Appendix 3).

The services provided were:
- functional and workplace assessment
- employer education
- RTW plan development
- implementation of a graduated RTW program, including monitoring and upgrades
- equipment prescription and strategy development
- on-site reviews and support for the client and employer
- confirmation of stability of placement, including closing the file and handing over for further monitoring if required.

The New Track pathway

The New Track pathway was designed as a pre-vocational intervention, targeting BIRP clients without opportunity to resume pre-injury employment or secure available positions in mainstream employment, due to the effects of injury (see eligibility criteria, Appendix 2). Participation in an unpaid work training placement allowed for practical assessment, and the development of work fitness and skills to transition to further work opportunities, as appropriate.

BIRP staff typically referred clients to this pathway many years post injury. The client and provider identified suitable options for the work training placement via a vocational assessment, with input from the BIRP case manager, the client’s family and others. The provider then sourced a host employer on behalf of the client and conducted workplace assessment to confirm suitability. Unpaid work training placements of up to 12 weeks were negotiated with host employers. There was no requirement or expectation for the employer to provide paid work at the conclusion of the placement (refer to the pathway flowchart, Appendix 4).

The services provided were:
- vocational assessment to establish goals
- canvassing employers for work training placements
- workplace assessment
- negotiating conditions of the placement
- on-site training and support (including travel training, etc.)
- consideration of the need for equipment and/or training courses
- employer education and support
- monitoring and upgrading work training placement
- finalising the placement outcome and planning for an onward vocational program.
**Funding of services**

There was an approved budget for the delivery of both VIP intervention trials across the three regions of NSW.

A milestone payment system (periodic incremental payments over the course of the project) was used for invoicing for each participant. The milestones aligned with the stages of service delivery included in the manuals (refer to Appendices 3 and 4).

**Recruitment of participants**

Referral registers were routinely completed by BIRP teams at case meetings, which listed all of the clients who were identified as suitable for an employment program. Further consultation with the client, families and other treatment providers determined if the VIP was the most suitable program, considering medical clearance, readiness, interest/willingness to participate and the selection criteria.

The BIRP case manager then contacted the vocational rehabilitation provider to discuss the referral, confirm suitability and the capacity of the provider to accept the client before transmitting the referral form by email. For Fast Track referrals, the VIP provider contacted the employer to confirm their support to manage a graduated RTW program, prior to accepting the referral. The ACI project manager was involved in screening those referrals with complex circumstances, when it was unclear if the client met criteria and when providers did not have capacity to immediately accept the referral.
Program participants

Referrals for both pathways commenced May 2015 and concluded in December 2016 when the target number of referrals had been achieved.

A total of 83 clients were referred to the program, 75 commenced the VIP and 44 (57%) completed the program. Of the 44 participants who completed the program, 23 were participants of the Fast Track intervention and 21 participated in New Track. A further three New Track participants were still undertaking their program at the time of this report.

Figure 1: Participant referral overview

![Participant referral overview diagram]

Referrals did not proceed

Program commenced

Program incomplete

Program completed

Employed

Not employed

Fast Track

n = 32

New Track

n = 51

Referrals did not proceed

Program commenced

Program incomplete

Program ongoing

Employed

Not employed

Referrals N = 83

n = 29

n = 46

n = 22

n = 6

n = 22

n = 23

n = 6

n = 21

n = 1

n = 22

n = 1

n = 6

n = 15
Table 2 shows a breakdown of the program commencements by region and intervention, including the number of estimated programs. Overall, the demand for the New Track intervention was greater than anticipated, particularly in the Sydney metropolitan region. Consequently, the referrals to New Track in the metropolitan region were placed on hold between July 2015 and June 2016 to allocate programs to other regions with lower caseloads. Conversely, the demand for the Fast Track program was lower than expected, particularly in the Western region.

Table 2: Breakdown of program commencements (n=75)

<table>
<thead>
<tr>
<th>Location</th>
<th>Total</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimated</td>
<td>Actual</td>
<td>Estimated</td>
<td>Actual</td>
<td>Estimated</td>
<td>Actual</td>
</tr>
<tr>
<td>Sydney metropolitan</td>
<td>27</td>
<td>36</td>
<td>19</td>
<td>20</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>North Coast</td>
<td>29</td>
<td>27</td>
<td>11</td>
<td>7</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>Western</td>
<td>22</td>
<td>12</td>
<td>12</td>
<td>2</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
<td>75</td>
<td>42</td>
<td>29</td>
<td>36</td>
<td>46</td>
</tr>
</tbody>
</table>

Participant profile

Table 3 shows the demographic and injury details for the participants who commenced the VIP (n=75). Where appropriate, analyses were done to assess significant differences in demographics and injuries of Fast Track and New Track participants.

The participant profile aligned with the expectations for a population with severe brain injury:

- The majority of participants were males with an average age of 40 years.
- Most participants (78%) had sustained a TBI that was either very severe or extremely severe, as measured by length of posttraumatic amnesia.
- The New Track program participants were significantly younger than Fast Track participants.
- There was a significant over-representation of people with ABI in New Track compared to the Fast Track intervention.
- There was a significant difference in time post injury, with a mean of 62 months for New Track participants and 5 months for Fast Track participants.
- By definition, everyone in Fast Track was employed prior to injury, compared with around two-thirds of those in the New Track intervention.
- A greater proportion of participants in Fast Track had completed a university degree.
Table 3: Demographics and injury details for program commencements (n=75)

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Total sample (n=75)</th>
<th>Fast Track (n=29)</th>
<th>New Track (n=46)</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex (n, %)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>60 (80.0)</td>
<td>21 (72.4)</td>
<td>39 (84.8)</td>
<td>–</td>
</tr>
<tr>
<td>Female</td>
<td>15 (20.0)</td>
<td>8 (27.6)</td>
<td>7 (15.2)</td>
<td></td>
</tr>
<tr>
<td><strong>Country of birth (n, %)</strong></td>
<td></td>
<td></td>
<td></td>
<td>–</td>
</tr>
<tr>
<td>Australia</td>
<td>66 (88.0)</td>
<td>23 (79.3)</td>
<td>43 (93.5)</td>
<td></td>
</tr>
<tr>
<td>Other*</td>
<td>9 (12.0)</td>
<td>6 (20.7)</td>
<td>3 (6.5)</td>
<td></td>
</tr>
<tr>
<td><strong>Age at referral (years)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mean, SD</td>
<td>39.0 ±13.1</td>
<td>42.9 ±13.0</td>
<td>36.5 ±12.6</td>
<td>U = 483.000, p = 0.045</td>
</tr>
<tr>
<td>median, IQR</td>
<td>38.8, 23.1</td>
<td>45.3, 22.2</td>
<td>35.9, 24.2</td>
<td></td>
</tr>
<tr>
<td>min-max</td>
<td>16.5-66.0</td>
<td>19.3-66.0</td>
<td>16.5-61.2</td>
<td></td>
</tr>
<tr>
<td><strong>Marital status (n, %; n=74)</strong></td>
<td></td>
<td></td>
<td></td>
<td>–</td>
</tr>
<tr>
<td>Married/De facto</td>
<td>34 (45.9)</td>
<td>16 (55.2)</td>
<td>18 (40.0)</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>37 (50.0)</td>
<td>12 (41.4)</td>
<td>25 (55.6)</td>
<td></td>
</tr>
<tr>
<td>Separated/Divorced</td>
<td>3 (4.1)</td>
<td>1 (3.4)</td>
<td>2 (4.4)</td>
<td></td>
</tr>
<tr>
<td><strong>Highest education (n=74)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 10 or less</td>
<td>21 (28.4)</td>
<td>1 (3.4)</td>
<td>20 (44.4)</td>
<td>( \chi^2 = 19.912, p &lt;0.001 )</td>
</tr>
<tr>
<td>Year 12</td>
<td>13 (17.6)</td>
<td>6 (20.7)</td>
<td>7 (15.6)</td>
<td></td>
</tr>
<tr>
<td>TAFE</td>
<td>19 (25.7)</td>
<td>7 (24.1)</td>
<td>12 (26.7)</td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>21 (28.4)</td>
<td>15 (51.7)</td>
<td>6 (13.3)</td>
<td></td>
</tr>
<tr>
<td><strong>Time post injury (months)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mean, SD</td>
<td>39.9 ±69.0</td>
<td>5.1 ±3.1</td>
<td>61.8 ±80.9</td>
<td>U = 115.500, p &lt;0.001</td>
</tr>
<tr>
<td>median, IQR</td>
<td>10.1, 39.3</td>
<td>4.1, 2.9</td>
<td>29.5, 58.2</td>
<td></td>
</tr>
<tr>
<td>min-max</td>
<td>0.9-362.3</td>
<td>0.9-13.1</td>
<td>2.6-362.3</td>
<td></td>
</tr>
<tr>
<td><strong>Type of injury</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBI</td>
<td>56 (74.7)</td>
<td>26 (89.7)</td>
<td>30 (65.2)</td>
<td>( \chi^2 = 5.616, p = 0.018 )</td>
</tr>
<tr>
<td>ABI</td>
<td>19 (25.3)</td>
<td>3 (10.3)</td>
<td>16 (34.8)</td>
<td></td>
</tr>
<tr>
<td><strong>If TBI, injury severity, PTA (n=53)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate (1-24 hours)</td>
<td>1 (1.9)</td>
<td>0 (0.0)</td>
<td>1 (3.6)</td>
<td>–</td>
</tr>
<tr>
<td>Severe (1-7 days)</td>
<td>7 (13.2)</td>
<td>4 (16.0)</td>
<td>3 (10.7)</td>
<td></td>
</tr>
<tr>
<td>Very severe (8-28 days)</td>
<td>22 (41.5)</td>
<td>13 (52.0)</td>
<td>9 (32.1)</td>
<td></td>
</tr>
<tr>
<td>Extremely severe (&gt;28 days)</td>
<td>23 (43.4)</td>
<td>8 (32.0)</td>
<td>15 (53.6)</td>
<td></td>
</tr>
<tr>
<td><strong>Pre injury employment</strong></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>Employed</td>
<td>58 (77.3)</td>
<td>29 (100.0)</td>
<td>29 (63.0)</td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>17 (22.7)</td>
<td>0 (0.0)</td>
<td>17 (37.0)</td>
<td></td>
</tr>
</tbody>
</table>

*other includes: Austria, Fiji, Turkey, UK, South Africa, Hong Kong, New Zealand

**n = 3 missing (1 FT, 2 NT)

Note: Mann-Whitney U tests used for age, time post injury; Chi-Square tests used for sex, country of birth, marital status, highest education, type of injury and injury severity.
Compensable mix

Table 4 shows that 57 (76%) of those who commenced the program (n=75) were not compensable. This is a lower compensability rate than anticipated and likely reflects the lack of suitable employment program opportunities for non-compensable clients through the DES system.

There were only two participants with workers’ compensation claims (one of which was under Queensland jurisdiction). An additional three clients with workers’ compensation claims were identified for the program, though were unable to be referred (one self-insurer declined VIP; one client was not medically cleared within the referral timeframe; and one was unable to be referred because the VIP provider was not operational in the Western region).

Table 4: Compensation status (n=75)

<table>
<thead>
<tr>
<th>Compensation type</th>
<th>n</th>
<th>Total referrals (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>icare lifetime care only</td>
<td>7</td>
<td>9%</td>
</tr>
<tr>
<td>icare lifetime care &amp; CTP*</td>
<td>4</td>
<td>5%</td>
</tr>
<tr>
<td>CTP claim**</td>
<td>5</td>
<td>7%</td>
</tr>
<tr>
<td>W/C</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Non-compensable</td>
<td>57</td>
<td>76%</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100%</td>
</tr>
</tbody>
</table>

Abbreviations: LTC = Lifetime care, CTP = Comprehensive third party, W/C: Workers’ compensation

* 3 accepted dual claims, 1 LTC plus CTP under dispute

** 1 active claim, 3 settled claims, 1 ‘liability denied’
Early program exit

A total of 28 individuals who commenced the VIP (six Fast Track and 22 New Track participants) did not complete the program.

- The Fast Track participants were all midway through their RTW program when they ceased employment.
- Fifteen of 22 New Track participants ceased the program when canvassing for a work training placement. The remaining seven New Track participants elected to cease the program midway through their placement.

Table 5: Regional distribution of participants who did not complete the VIP (n=28)

<table>
<thead>
<tr>
<th>BIRP region</th>
<th>Total</th>
<th>Fast track</th>
<th>New track</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sydney metropolitan</td>
<td>8</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>North Coast</td>
<td>14</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Western NSW</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>28</td>
<td>6</td>
<td>22</td>
</tr>
</tbody>
</table>

Reasons for early program exit

The reason for early program exit was documented in the closure report for each participant. In some cases, program exit was related to the effects of injury, but in other cases personal and employer circumstances impacted on program continuation.

The New Track pathway dropout rate was higher than anticipated. This was not surprising when considering social disadvantages experienced by this group (such as lower levels of education and employment stability, and higher levels of disability and extended time post injury, relative to the Fast Track group). There were several BIRP clients who were many years post injury (approximately five years on average) and not engaged in any vocational activity due to a lack of suitable options.

The dropout rate is expected to improve in the future, as BIRP teams would now be confident to refer clients at an earlier stage post injury, when they have had more recent engagement with the workforce. Additionally, with further experience in working together, BIRP clinicians and VIP providers will become more judicious in determining work readiness for potential New Track participants.

As shown in Figure 2, seven individuals left the program to pursue alternate vocational goals, such as study or paid work. Two participants from the Western region were withdrawn from VIP due to staffing issues at the appointed provider (classified as ‘implementation issues’) and allocated to another local provider outside of the program.

Figure 2: Reasons for early program exit
Despite some participants exiting the VIP early, clinicians and providers on the VIP Steering Committee reported that participants benefitted by gaining awareness of their own work capacity, interest and suitability for open employment, and current priorities.

**Changes to appointed providers**

During the course of the VIP, changes to provider coverage were made in response to Break Thru’s capacity to service the VIP caseload.

In the Western region, staff turnover and changes to DES contract arrangements resulted in Break Thru’s withdrawal from VIP in January 2017. The five clients engaged in the program in this region were reallocated to two other local providers to continue their vocational program.

Break Thru continued service provision in Sydney, though Keystone Professionals were also engaged in servicing New Track clients to meet the level of demand for this program.
Fast Track participant outcomes

Of the 29 people who commenced Fast Track (20 in Sydney metropolitan, seven in the North Coast and two in the Western region), 23 individuals completed the program and six dropped out of the program (and employment).

The diverse range of occupations and pre and post injury work hours for participants who completed the Fast Track pathway are illustrated in Appendix 5.

At the time of injury, 19 of 23 participants (83%) were employed full-time and the remainder held part-time or casual employment. All 23 participants resumed their pre-injury job roles, initially on reduced hours and, in most cases, with a reduced range of duties and compensatory strategies to manage cognitive impairments. Consideration of physical injuries was also required in some cases, including ergonomic workstation assessment and purchase of office equipment.

Only one participant (a senior change manager) who completed the Fast Track pathway was not working at the time of case closure. In this case, the participant had upgraded to full pre-injury status and elected to leave his employer and seek employment elsewhere within the same industry.

Fast Track case study: Adrian

History of injury
Adrian is a 37 year old man who sustained an extremely severe TBI following a fall in July 2014. He also sustained fractures to his face, right radius, ulna, scaffold, pelvis and bilateral lower limbs. The duration of post-traumatic amnesia was recorded as 31 days.

Employment history
For four years prior to his injury, Adrian worked full-time for a large telecommunications company as an IT analyst/programmer. He worked on specific projects involving reviewing data, analysing trends, writing code and identifying IT solutions.

The employer was supportive of accommodating a graduated RTW program.

Status at entry to the VIP
Adrian was referred to Keystone Professionals by the Ryde BIRP team in June 2016, eleven months post injury, at which time he was living independently (with fortnightly domestic assistance). However, Adrian was non weight bearing (due to recent ankle surgery) and used a power wheelchair for mobility. He also had reduced functioning and range of movement in his right hand and wrist.

Adrian’s cognitive functioning was largely intact, however neuropsychological testing indicated reduced speed of information processing. Therefore, his primary concern in considering RTW was fatigue and ongoing physical limitations.

RTW planning
Keystone Professionals conducted an initial assessment with Adrian and a workplace assessment with his employer to develop the RTW plan. An adaptive keyboard was provided and it was determined that Adrian would travel to work by bus, using his wheelchair.

RTW progress
Adrian resumed work in September 2015, attending work twice weekly for four hour per day for the initial 10 weeks. He was allocated familiar work without tight timeframes so that he could work at his own pace. Adrian used the recommended organisational and memory strategies to assist him with his work.

As Adrian’s mobility improved, he no longer required the wheelchair and Keystone Professionals provided a more appropriate office chair.

His employer was happy with his work performance and no cognitive concerns were identified. They continued to provide suitable project tasks and accommodated periodic absences, when Adrian had orthopaedic procedures and medical follow-up appointments.

RTW outcome
At the six month Fast Track case closure point, Adrian had upgraded to 28 hours per week and continued to work on projects without strict time constraints.

He and his employer were aiming to upgrade to full pre-injury status by June 2016. An additional three months of assistance was provided by Keystone Professionals to support Adrian to achieve full-time work nine months after commencing the RTW program.

Summary
This case study demonstrates the potential of a person with severe and complex multi-trauma to achieve their pre-injury work role, following a well-coordinated and self-paced RTW program.

Adrian was a motivated, patient and active participant in the rehabilitation process, as was his employer. It was fortunate that his job was sedentary and he had good cognitive recovery (including intact memory of pre-injury learning), enabling him to resume his highly technical field of employment.
**Fast Track outcomes**

Work status was recorded at the time of case closure for each participant (usually at six months post RTW). Of 29 participants who resumed their pre-injury employment, 22 were working at the time of case closure and seven were not working (six of whom were program incompletes and one resigned from his employment once completing the program). This constitutes a RTW rate for Fast Track pathway of 76%.

Of the 22 participants working at this time point, only six had upgraded to their full pre-injury status (hours and duties). The remaining 16 participants were expected to continue to upgrade gradually beyond the timeframe of the VIP (including upgrading hours and/or range of duties). The graph below illustrates the change in vocational status for Fast Track participants, from pre-injury to case closure.

**Services post VIP**

Following closure of the VIP, vocational rehabilitation providers received further funding from insurance agents to continue to facilitate the upgrading process for seven of the 15 Fast Track participants working partial duties and hours at the six month case closure mark.

In the remaining cases without extended funding, further upgrading was managed between the employer and employee, with the BIRP case manager often nominated as a point of contact for any difficulties.
New Track participant outcomes

Of the 46 individuals who commenced New Track:

- 21 participants completed the program
- 22 participants dropped out of the program, either before or during a work training placement. Three participants were awaiting a placement at the time of this report.

After completing the vocational assessment and identifying the participant’s job goal, vocational rehabilitation providers were responsible for canvassing employers for a work training opportunity and negotiating terms of the placement.

In a few cases, clients had employer leads who they contacted or directed the provider towards; however in the majority of cases the vocational consultants canvassed potential employers on behalf of the clients. The target duration of canvassing was six weeks, with the intention that providers review and move onto new vocational goals if searching a particular field was not yielding results. In practice, canvassing time ranged from 1-43 weeks for the 28 individuals for whom a placement was located, with an average of 12 weeks.

The pre-injury occupations are set out in Appendix 6, including the job area for each work training placement, the placement durations and the status at end of placement for the 21 participants who completed the New Track pathway.

The vast majority of participants (19/21) completed a single placement. To gain a better job match, one participant completed two placements and another participant completed three placements.

In contrast to Fast Track, the pre-injury job area of participants tended to be in different industries for New Track participants. This is consistent with the intention of this intervention. Of the 21 participants, five participants completed New Track within their same industry, 14 were in a different industry and the remaining two incurred their injuries as children and had not worked pre injury.

The intended duration of placements was 12 weeks. However, many placements exceeded 12 weeks to allow for disruptions caused by holidays or illness, or so that additional learning/goals could be met. For instance, one participant undertaking a placement in a retail setting required an additional 12 weeks to gradually withdraw the on-site involvement of his attendant carer and allow opportunity for independent work.
New Track case study: Gary

History of injury
Gary is a 41 year old man who acquired a brain injury following a Grade 5 subarachnoid haemorrhage in 2008. He was living with his parents on the NSW mid-north coast and receiving daily support from attendant carers to participate in community activities.

Employment history
For four years prior to his injury, Gary was employed as a manager in the timber logging industry, after holding physical roles in car mechanics, sawmill and butchery, following completion of his schooling. He had not worked since acquiring his brain injury.

Status at entry into the VIP
Gary continued to experience global cognitive deficits including issues with memory, speech, comprehension and attention. He had increased tone and reduced function of his right upper and lower limbs. He walked with a crutch and used a custom ankle foot orthosis to assist when walking.

Vocational assessment
Gary was referred to CHESS by the mid north-coast BIRP in October 2015 (seven years post injury). He was interested in pursuing roles in customer service or as a retail sales assistant.

Work training placement
CHESS located a 12-week work training placement with a large camping store in Gary's local area. He commenced with restocking tasks, attending two three-hour shifts per week. One-on-one support was provided by his attendant carer for all aspects of work participation, including transport.

Gary learned the job role very gradually. He did not achieve the goals of the placement by 12 weeks, particularly as he had limited exposure to customers and his carer did not withdraw from the work site, so his capacity for independent work could not be assessed. The trial was therefore extended for another 12 weeks, with the same hours of attendance. During this period, the carer was gradually withdrawn from the work environment (though he still drove Gary to the placement) and Gary's enjoyment of the work increased as he started servicing customers.

It was challenging for CHESS to implement the plan to withdraw the carer as it was not customary for the carer to leave Gary alone.

New Track outcome
At the conclusion of the 24 week program, the host employer indicated some interest in employing Gary in a paid capacity. CHESS handed the case over to Gary’s local DES provider for this to be followed up. Details of further negotiations beyond the scope of the VIP program are unknown. However, at the three month post case closure VIP follow-up, Gary was not working.

Case summary
This case highlights the extended timeframe required for people with significant disability requiring intensive assistance, to allow adequate time for them to learn and develop independent skills.

It also raises the issue of how on-the-job support can best be provided, and by whom. It is worth noting that the provision for unpaid work experience placements within the DES is currently only four weeks.
New Track outcomes

A number of different outcomes were achieved by New Track participants, categorised as follows:

<table>
<thead>
<tr>
<th>Outcome category</th>
<th>Case closure (n=21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working with host employer</td>
<td>6 (29%)</td>
</tr>
<tr>
<td>Volunteer with host employer</td>
<td>2 (10%)</td>
</tr>
<tr>
<td>Volunteer with alternate organisation</td>
<td>3 (14%)</td>
</tr>
<tr>
<td>Not working</td>
<td>10 (48%)</td>
</tr>
</tbody>
</table>

Roughly half (53%) of New Track participants were engaged in work-related activity at the conclusion of the program. Six of the 21 individuals secured paid work with the host employer at the end of their placements: one in disability-segregated employment (grounds maintenance) and five in mainstream employment.

In three further cases, the host employer expressed an interest in offering the client paid work. However this required confirmation and further investigation of supports, including assessment of productivity-based wage. When followed up at 3-months post closure, these 3 clients were not working.

Subsequent services

The New Track pathway was a stepping stone in the process of seeking new employment, with the intention that participants be referred onto other programs/providers to pursue following stages.

- Of the six participants who obtained paid work with the host employers, four continued working with no vocational rehabilitation provider support, one continued working with ongoing support from the DES program and one was working within an employment with built-in support (Australian Disability Enterprise).
- One participant continued work training program funded by icare lifetime care.
- Three participants were funded through the NDIS for continued work training program.
- Four participants were registered with DES for job seeking.
- Five participants pursued further training and volunteer activities without vocational rehabilitation provider support.
- Two participants were not pursuing any vocational activities.
Collaborative service delivery

A core element of the VIP was collaborative relationship between the two service partners. This is not experienced by BIRP sites outside of the VIP.

This collaboration, along with the VIP resources and forums, benefitted service delivery in a number of ways:

• **Expertise** – Examples of valuable sharing expertise across service systems were described. For instance, Break Thru and BIRP staff held a joint education session with a participant’s employer in Dubbo, and Keystone Professionals provided information to the Ryde BIRP related to managing industrial issues beyond case closure of a VIP participant. A greater understanding of how to identify and manage ABI-related issues in an employment context developed through joint case experiences.

• **Ease of communication** – Having a single point of contact with the vocational rehabilitation provider and BIRP teams greatly improved communication and coordination. Additionally, BIRP staff could directly seek advice regarding other clients and other aspects (e.g. Centrelink processes).

• **Inter-agency knowledge sharing** – The VIP steering committee had representation from all providers and BIRPs, which provided a unique opportunity for sharing ideas and experiences across organisations. A case was presented by one provider at each steering committee meeting, which generated discussion about different ways to manage particular issues.

• **Individual reports and test results** – Vocational rehabilitation providers received information from the BIRP teams at referral and throughout the program about individual clients, which was crucial for tailoring RTW modifications and strategies.
A number of advantages and issues impacting on service provision were identified during focus groups and individual discussions.

Advantages of the VIP model for BIRP clients

- **Client centred** – Vocational goals were in line with the preferences of each client and programs delivered with greater flexibility compared with the rigid requirements of the DES model. This flexibility included such things as the hours and timing of activities, the ability to place a client’s program on hold to accommodate changes in their circumstances, extending the duration of a work training placement and providing more than one placement per client if necessary.

- **Employer commitment** – The structured program and support of the providers was well received by employers. This was particularly evident in the Fast Track pathway, in which a graduated RTW program was supported in 29 of 32 employers approached.

- **Visible service partnership** – In regions where the relationship between the BIRP team and vocational rehabilitation provider became well established, the ‘visibility’ of this partnership (e.g., holding joint assessment sessions) assisted clients to understand the roles of each partner and engage with the new service.

- **Opportunity for self-assessment** – The VIP provided practical opportunity for individuals to assess their own work abilities. For some participants, work placement was a ‘reality check’ and it drove them to recognise difficulties and adjust their expectations. In other cases, participating in work restored a person’s self-confidence and invigorated them to pursue employment-related goals.

- **Equity** – VIP services were available for all clients regardless of their compensable status, cause of injury, factors relating to income source or personal finances or level of disability.

- **Targeted program interventions** – Fast Track and New Track interventions were clearly defined with specific eligibility criteria, goals, program protocols and expectations, which assisted in identifying suitable participants, steering progress and maintaining motivation.

- **Sustainability** – The Fast Track pathway translates to existing funding schemes across the compensable and government-funded markets. Managing graduated RTW programs are standard requests to insurers and the DES Job in Jeopardy program targets retention of current employment.

Potential improvements to the VIP model

The majority of issues that arose during the implementation of the VIP related to the New Track pathway, reflecting the greater complexities encountered in managing new employer interventions.

Note that some of the issues described below related to program implementation at a single region and were not experienced by teams at all sites.

- **On-the-job training procedures and resources** – There was variability in how the on-the-job support was provided to New Track participants. In some cases, the VIP consultant provided on-the-job training (for every shift in some instances). In other cases, paid carers accompanied clients to their work training shifts, and they had to establish and understand the employers’ expectations about their contribution to on-the-job support, including how to transition to co-worker support and promote independence whilst controlling for risk.

- **Participants’ out of pocket expenses** – Expenses for items such as workplace clothing and equipment were considered, but there was no reimbursement for travel. Providers and clinicians raised concerns about New Track participants funding their own travel expenses to work shifts.

- **Restricted program duration** – The duration of placements was limited (Fast Track pathway placement was 26 weeks and New Track pathway placements was 12 weeks) to maximise the number of positions available to participants within the fixed budget. Providers recommended unrestricted timeframes to allow for provider involvement for as long as required for each participant.

- **Timeframes for milestone achievements in New Track** – The VIP did not have set guidelines for participants and service providers to interface. Regular interaction through weekly job canvassing sessions or monthly team caseload review may have better facilitated the momentum for progressing participant pathways, particularly with job canvassing (which took longer than anticipated).

- **Work placement review points** – Review points were built into the program (six weeks into placement for New Track and at two and four months post RTW for Fast Track). Providers completed measures and progress reports at these times. BIRP clinicians suggested formalising these review points to include the case manager and others involved in service provision within the meeting.
• **Case closure procedures** – In a number of cases, the process of a participant transferring to other vocational programs at the end of the work training placement was disjointed and prolonged. This included people being referred to other programs within the same provider (DES, NDIS and School Leaver Employment Support). A more comprehensive handover process is required to ensure continuation of goals and follow up of actions.

• **Staff turnover and team capacities** – At some sites, changes in staffing and team capacity within BIRP and provider teams disrupted the flow of referrals and continuity of participants’ pathways over the course of the VIP. This was particularly evident in the mid-Western region in which Break Thru did not have an office established when appointed to the VIP. This highlights the need for ongoing education and program handover within VIP teams.

• **Inclusion of job seeking for paid work** – The New Track pathway provided an effective structure for participants to trial a new job area, but did not cater for those ready to seek paid work from the outset. Consideration should be given to expanding the New Track range of services in the future.

• **Sustainability** – The sustainability of the New Track pathway is unclear. Unpaid work training placements are not sufficiently supported within the current DES funding structure (allowing up to four weeks for a placement), however they may be supported by individual insurance agents. The NDIS guidelines support activities preparing participants for work and may be a future funding source for work training placements.
Recommendations and next steps

The VIP has established the foundation for partnerships between BIRPs and vocational services, and demonstrated the positive individual outcomes achieved through effective collaboration.

Five BIRP sites not involved with the intervention contributed matched control data to test program efficacy for the independent evaluation (to be reported by JWCRR). Discussions with these sites throughout the project confirm the lack of service options in these regions (particularly in the New Track pathway) and that no specialist provider/s has filled the gap created by the closure of CRS Australia.

Recommendations

There are two key recommendations resulting from the VIP.

**Recommendation 1**
Upscale the VIP to a statewide service, partnering all 12 BIRP sites with local vocational rehabilitation providers (DES and private sector) to improve employment participation for people with TBI in NSW.

The key program elements of local service partnerships, ABI specific resources, tailored service delivery and the operation of a specialist network will continue. DES and private vocational rehabilitation providers will be applying to join the VIP network, endorsing a ‘statement of commitment’ alongside the BIRPs, committing to the organisational and service delivery structures that the VIP requires.

**Recommendation 2**
Examine the level of post-school participation of adolescents in employment and training programs, through surveying a sample of school leavers from the paediatric BIRP teams.

A recommendation was made in an earlier research study concerning the cohort of young clients transitioning from school to adult programs. This has not been pursued. The outcomes and issues for this group are unclear, as most are not referred onto the adult BIRP teams and are lost to follow up.
Appendix 1: Fast Track eligibility criteria

A. Employment circumstances (all three conditions must be met)
   − The client was employed at the time of injury.
   − The client has indicated willingness to return to work with their pre-injury employer.
   − The employer indicates it is able to provide a graded RTW program.

B. Diagnosis (either condition must be met)
   − The client has severe to extremely severe traumatic brain injury (PTA >24 hours).
   − The client has non-traumatic brain injury (referring to an injury to the brain that follows a medical event, e.g. stroke, brain infection, loss of oxygen from heart attack or drowning).

C. Engaged with the referring BIRP in a rehabilitation program

D. Readiness for RTW (all conditions must be met)
   − Accommodation is stable and enables the client to reliably engage in community activities.
   − The client has sufficient cognitive capacity to apply new information in everyday situations, or the ability to learn to do this, such that the level of support can reduce over time.
   − The client has the ability to independently attend to own personal care needs in a community setting, or do so with support.
   − The client has the ability to mobilise independently in the community and workplace (with or without aids).
   − The client demonstrates appropriate social behaviour or behaviour that can be managed with support in the workplace.
   − There is no current alcohol or drug use that compromises program engagement.
Appendix 2: New Track eligibility criteria

A. Employment circumstances (all three conditions must be met)
   The client:
   − does not have an identified employer.
   − does not have current marketable skills to secure paid work.
   − has an active rehabilitation goal to participate in employment.
   − has agreed to undertake an unpaid work training placement of up to 12 weeks.

B. Diagnosis (either condition must be met)
   − The client has very severe to extremely severe traumatic brain injury (PTA > 7 days).
   − The client has non-traumatic brain injury (refers to an injury to the brain that follows a medical event, e.g. stroke, brain infection, loss of oxygen from heart attack or drowning)

C. Engaged with the referring BIRP team in a rehabilitation program

D. Readiness for work
   − Accommodation is stable and enables the client to reliably engage in community activities.
   − As a guide, clients suited to New Track may require a level of support equivalent to Care and Needs Scale (CANS) level 3-5.
   − The client has sufficient cognitive capacity to apply new information in everyday situations, or the ability to learn to do this, such that the level of support can reduce over time.
   − The client has the capacity to attend a work training placement at least 8 hours per week and can potentially work towards paid work at completion of the program (may utilise supported wage system, wage subsidies, etc.).
   − The client has the ability to independently or with support to attend to personal care needs in a community setting.
   − The client has the ability to mobilise independently in the community (with or without aids), though they may require support to access new locations.
   − The client demonstrates appropriate social behaviour or behaviour that can be managed with support in a work or training environment.
   − There is no current alcohol or drug use that compromises program engagement.
Appendix 3: Fast Track pathway flowchart

Referral
- Early discussions between the employer, employee and rehabilitation providers

1 month
Assess and plan
- Joint initial assessment
- Workplace assessment
- Develop RTW plan

6 months
Implement RTW
- Implement strategies
- Gradual upgrading
- Employer education & support

Case closure
- Case review with all parties
- Onward referral if further supports required
Appendix 4: New Track pathway flowchart

Referral

4 weeks

Assess and plan
- Vocational assessment
- Identify vocational goals and level of supports

6 weeks

Locate placement
- Canvass for host employer
- Workplace assessment to determine suitability

12 weeks

Implement placement
- Develop work training plan
- Educate and support employer
- On-the-job support and training as required

Case closure
- Review meeting with all parties
- Onward referral if required
### Appendix 5: Occupation and hours/week for completed Fast Track participants (n=23)

<table>
<thead>
<tr>
<th>Participant job title</th>
<th>Pre-injury hours/week</th>
<th>Hours at program completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales assistant</td>
<td>38</td>
<td>15</td>
</tr>
<tr>
<td>Analyst programmer</td>
<td>38</td>
<td>28</td>
</tr>
<tr>
<td>Administrative assistant</td>
<td>casual, 8-16 hrs/wk</td>
<td>casual, 0-12 hrs/wk</td>
</tr>
<tr>
<td>Marketing communications manager</td>
<td>38</td>
<td>32</td>
</tr>
<tr>
<td>Senior change manager</td>
<td>38</td>
<td>0</td>
</tr>
<tr>
<td>IT service desk engineer</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Accounts payable officer</td>
<td>38</td>
<td>18</td>
</tr>
<tr>
<td>Manager of connectivity operations</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Construction engineer</td>
<td>38</td>
<td>24</td>
</tr>
<tr>
<td>Operational risk manager</td>
<td>38</td>
<td>24</td>
</tr>
<tr>
<td>Bar assistant</td>
<td>35</td>
<td>11</td>
</tr>
<tr>
<td>Workers’ compensation manager</td>
<td>38</td>
<td>32</td>
</tr>
<tr>
<td>Travel consultant</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Night filler</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Materials manager</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Customer service officer</td>
<td>38</td>
<td>25</td>
</tr>
<tr>
<td>3D designer</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Teacher, TAFE</td>
<td>38</td>
<td>22.5</td>
</tr>
<tr>
<td>Business owner – retail</td>
<td>varied</td>
<td>30</td>
</tr>
<tr>
<td>Support teacher</td>
<td>38</td>
<td>7</td>
</tr>
<tr>
<td>Assistant in nursing</td>
<td>38</td>
<td>32</td>
</tr>
<tr>
<td>Data management</td>
<td>38</td>
<td>5</td>
</tr>
<tr>
<td>Manufacturing labourer</td>
<td>38</td>
<td>38</td>
</tr>
</tbody>
</table>
### Appendix 6: Work training details for completed New Track participants (n=21)

<table>
<thead>
<tr>
<th>Participant pre-injury occupation</th>
<th>Job area for work training placement</th>
<th>Duration of work training placement (weeks)</th>
<th>Activity status at case closure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maths teacher</td>
<td>Trainee maths teacher</td>
<td>15</td>
<td>Volunteer (alternative employer)</td>
</tr>
<tr>
<td>Swim instructor, bike sales retail and university student</td>
<td>Gym attendant</td>
<td>6</td>
<td>Studying and volunteer (alternative employer)</td>
</tr>
<tr>
<td>Bar and gaming attendant</td>
<td>Food and beverage attendant</td>
<td>14</td>
<td>Working with host employer</td>
</tr>
<tr>
<td>Unemployed IT technician*</td>
<td>Administration assistant</td>
<td>13</td>
<td>Volunteer (alternative employer)</td>
</tr>
<tr>
<td>Student</td>
<td>Supported volunteer – food preparation</td>
<td>18</td>
<td>Not working</td>
</tr>
<tr>
<td>IT consultant and programmer</td>
<td>IT test analyst</td>
<td>12</td>
<td>Working with host employer</td>
</tr>
<tr>
<td>Pre-cast panelling installer (building industry)</td>
<td>1: General factory hand 2: General factory hand 3: Animal attendant/general hand</td>
<td>Placement 1: 6 Placement 2: 12 Placement 3: 6</td>
<td>Not working</td>
</tr>
<tr>
<td>Pizza shop manager and delivery driver</td>
<td>1: Stock replenisher 2: Stock replenisher/shop assistant</td>
<td>Placement 1: 6 Placement 2: 6</td>
<td>Not working</td>
</tr>
<tr>
<td>Truck driver</td>
<td>Stock replenisher/customer assistance</td>
<td>12</td>
<td>Not working</td>
</tr>
<tr>
<td>Plant operator</td>
<td>Retail assistant</td>
<td>24</td>
<td>Volunteering (host employer)</td>
</tr>
<tr>
<td>Project manager</td>
<td>Grounds and maintenance assistant</td>
<td>12</td>
<td>Working with host employer</td>
</tr>
<tr>
<td>Floor manager – timber mill factory</td>
<td>Sales assistant</td>
<td>24</td>
<td>Not working</td>
</tr>
<tr>
<td>Shelf stacker</td>
<td>Environmental officer</td>
<td>12</td>
<td>Volunteer (host employer)</td>
</tr>
<tr>
<td>Sous chef</td>
<td>Gym attendant</td>
<td>14</td>
<td>Not working</td>
</tr>
<tr>
<td>Unemployed field officer/ scientist*</td>
<td>Café kitchen hand</td>
<td>13</td>
<td>Not working</td>
</tr>
<tr>
<td>Unemployed labourer*</td>
<td>General hand</td>
<td>12</td>
<td>Working with host employer (supported employment)</td>
</tr>
<tr>
<td>Hospitality – wait person</td>
<td>Aged care support worker</td>
<td>12</td>
<td>Working with host employer</td>
</tr>
<tr>
<td>Labourer</td>
<td>Warehouse store person</td>
<td>14</td>
<td>Working with host employer</td>
</tr>
<tr>
<td>Unemployed excavator*</td>
<td>Nursery assistant/groundsperson</td>
<td>12</td>
<td>Not working</td>
</tr>
<tr>
<td>Concreter</td>
<td>Motel caretaker</td>
<td>14</td>
<td>Not working</td>
</tr>
<tr>
<td>N/A (infant)</td>
<td>Shelf stacking</td>
<td>3</td>
<td>Not working</td>
</tr>
</tbody>
</table>

* Seven participants were unemployed at the time of injury.
## Appendix 7: VIP evaluation framework

<table>
<thead>
<tr>
<th>Research question</th>
<th>Design</th>
<th>Data collection</th>
<th>Data analysis and reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the quality of the materials developed by the ACI for the VIP?</td>
<td>Audit of training materials</td>
<td>JWCRR</td>
<td>JWCRR</td>
</tr>
<tr>
<td>What were the levels of knowledge and satisfaction gained from the VIP training?</td>
<td>Pre-post training workshop evaluation</td>
<td>JWCRR</td>
<td>JWCRR</td>
</tr>
<tr>
<td>What are the service inputs and client outcomes of the VIP?</td>
<td>Process, impact and outcome evaluation: provider’s service delivery and outcome data</td>
<td>JWCRR/BIRRG</td>
<td>JWCRR</td>
</tr>
<tr>
<td>What was the stakeholder’s experience of participating in the VIP?</td>
<td>Post-treatment service evaluation: Qualitative interviews, focus groups</td>
<td>JWCRR</td>
<td>JWCRR</td>
</tr>
</tbody>
</table>
| Is the Fast Track intervention more effective than standard practise in increasing vocational participation for people with brain injuries? | • Review of participant service and outcome data  
• Control site data comparison  
• Questionnaire data evaluation | JWCRR/BIRRG | JWCRR                       |
| Is the New Track intervention more effective than standard practise in improving work readiness and vocational participation work for people with brain injuries? | Questionnaire data evaluation              | JWCRR/BIRRG     | JWCRR                       |
| Does participation in the VIP intervention lead to improved quality of life for program participants? | Questionnaire data evaluation              | JWCRR/BIRRG     | JWCRR                       |
| What are the costs and benefits of the VIP?                                      | Cost-effectiveness analysis                 | JWCRR           | JWCRR                       |

BIRRG = Brain Injury Rehabilitation Research Group; JWCRR = John Walsh Centre for Rehabilitation Research