



BRAIN INJURY LINKWORKER SERVICE

Supporting people in prison, young offender institutions
and those at risk of homelessness

The report

This report provides a summary of the Foundation's recent work in providing specialist brain injury support for some of the most vulnerable people in our community.

Research¹ carried out by The Disabilities Trust Foundation shows nearly half of offenders and those at risk of homelessness have a history of traumatic brain injury (TBI) (47% and 48% respectively).

In this report we present key elements, achievements and outcomes from our research and service delivery.

The BISI

The Disabilities Trust Foundation has developed the Brain Injury Screening Index (BISI[®]) to identify people with a history of brain injury. This screening questionnaire has been developed for use by all levels of practitioners and is a key tool for people working with offenders and those at risk of homelessness.

Brain injury among adult male prisoners

Research was carried out in HMP Leeds to test the validity and ease of use of the Brain Injury Screening Index (BISI) to identify offenders with a history of traumatic brain injury (TBI). This research was peer reviewed and published by Neuropsychological Rehabilitation Journal in November 2014².

Methodology

Six hundred and thirteen offenders at HMP Leeds were screened using the BISI. Detailed interviews and assessments were conducted on a sample of 139 offenders identified as having a TBI and a matched³ control group of 50 offenders with no history of TBI. These interviews aimed to establish how accurate the questionnaire had been in identifying the prevalence of TBI and examine the range of cognitive, behavioural and emotional symptoms experienced by individuals with a TBI compared to those with no TBI.

Key findings

Results of the BISI showed that of the 613 offenders screened, 289 (47%) had a history of TBI. Of the sample of 139 offenders who reported a TBI and participated in the detailed interviews:

- 70% were identified as having a mild TBI⁴, 23% moderate TBI and 8% severe
- 70% reported their first TBI happened before their first offence
- 76% of participants had experienced more than one TBI, and of these 30% had experienced more than 5 TBIs
- the mean age at which the first TBI was sustained was 18
- 44% had been in prison on 5 or more occasions
- almost a third (31%) of the offenders failed to report their injury or seek medical treatment
- 41% said they had received a TBI through fights, with road accidents (15%) and falls (14%) being the other main causes
- 50% of offenders with history of TBI were using or had used drugs at the time of their arrest
- 60% reported having committed a violent offence, compared with 38% in the control group

44%

...in prison 5 or more times

30%

...experienced more than 5 TBIs

70%

...reported their first TBI happened before their first offence

60%

...committed a violent offence

41%

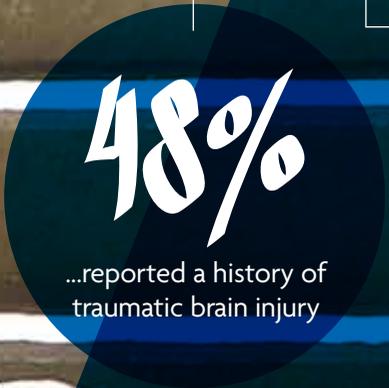
...sustained through fights

² Paper title: 'Neuropsychological performance markers of self-reported traumatic brain injury in a sample of adult male prisoners in the UK'.

³ Matched for age, education, IQ, and alcohol and drug use.

⁴ Mild TBI - defined as no loss of consciousness or loss of consciousness of less than 10 minutes. Moderate - defined as ten minutes or more but less than six hours. Severe - defined as loss of consciousness of six hours or more.

Brain injury in the homeless community



Key findings

- 48% of the homeless participants reported a history of traumatic brain injury compared to just 21% in the control group
- Of the homeless participants, 90% indicated that they had sustained their first traumatic brain injury before they became homeless
- The mean age at first injury was 19.9 years

This study, the first in the UK to consider the possible link between brain injury and homelessness, shows that homeless people are more than twice as likely to have suffered a traumatic brain injury (TBI) as someone in the wider population. Most of the homeless people interviewed had received their first injury before they became homeless, revealing a possible causal link between TBI and homelessness.

The service

The Disabilities Trust Foundation brain injury linkworker service:

- identifies homeless people and people within prison and young offender institutions with possible brain injuries
- develops personalised support plans by carrying out assessments of need
- provides effective interventions to address problems relating to brain injury including memory, concentration, behavioural problems, motivation and awareness of difficulties arising from the injury
- creates a network of support through the development of partnerships with health, offender management, housing and drug and alcohol services within the prison and in the community
- provides guidelines and advice to other services and agencies on how to work with someone with a brain injury
- facilitates people with a brain injury to engage with education, training and substance misuse programmes

Prison linkworker service

Based at HMP Leeds, HMYOI Wetherby and HMYOI Hindley, the linkworkers work directly with service users identified with a brain injury. Through the development of a personalised assessment of need, the linkworkers work with them to address the problems they are facing in relation to their brain injury - sleep, memory, anger and potentially the challenging behaviours that may have led to criminal activity. The linkworkers also assist service users to engage with existing rehabilitation programmes within the prison, such as education, training and addiction programmes, proven to have positive outcomes in re-offending yet very often not engaged with by service users with a brain injury.

Homelessness linkworker service

The community brain injury linkworkers support the most disadvantaged and vulnerable homeless with a brain injury. Currently working with homeless services across the centre of Leeds, the linkworker provides support to all homeless services in the community through one-to-one work and support clinics.

To date 180 people have been fully supported by the linkworker services



⁵ October 2013 to May 2014.

⁶ October 2012 to September 2014.

⁷ June 2013 to May 2014.

HMP Leeds

This section highlights the work and achievements of the linkworker service in HMP Leeds.

Key findings⁶

In less than two years the Foundation's linkworker at HMP Leeds has received...

Referrals

510

22%

Moderate TBI

62

People supported

67%

Mild TBI

The majority of offenders screened by the linkworker were found to have mild Traumatic Brain Injury (TBI)

140

Staff trained

Primary causes of injury were fights and road traffic accidents which led to a loss of consciousness.

Many offenders reported no residual problems as a result of their injuries. This is consistent with mild brain injury. Others however reported persistent problems with memory, concentration and speech, which were later confirmed through further interview and assessment.

Demand for the service

The service supported an active caseload of 15 service users at any given time⁸ and received on average 22 referrals per month.⁹

The length of time service users were supported by the service ranged from four days to 13 months, with an average of 96 days.

The cost

The linkworker service has a unit cost of £1,308 per service user fully supported or £235 per service user referred.¹⁰

50

Agencies engaged

11%

Severe TBI

⁸ Priority was given to those with greatest needs, through an established eligibility criterion.

⁹ Correct as of 1st September 2014.

¹⁰ This is based on data from the service in HMP Leeds between 1 September 2013 to 31 August 2014.

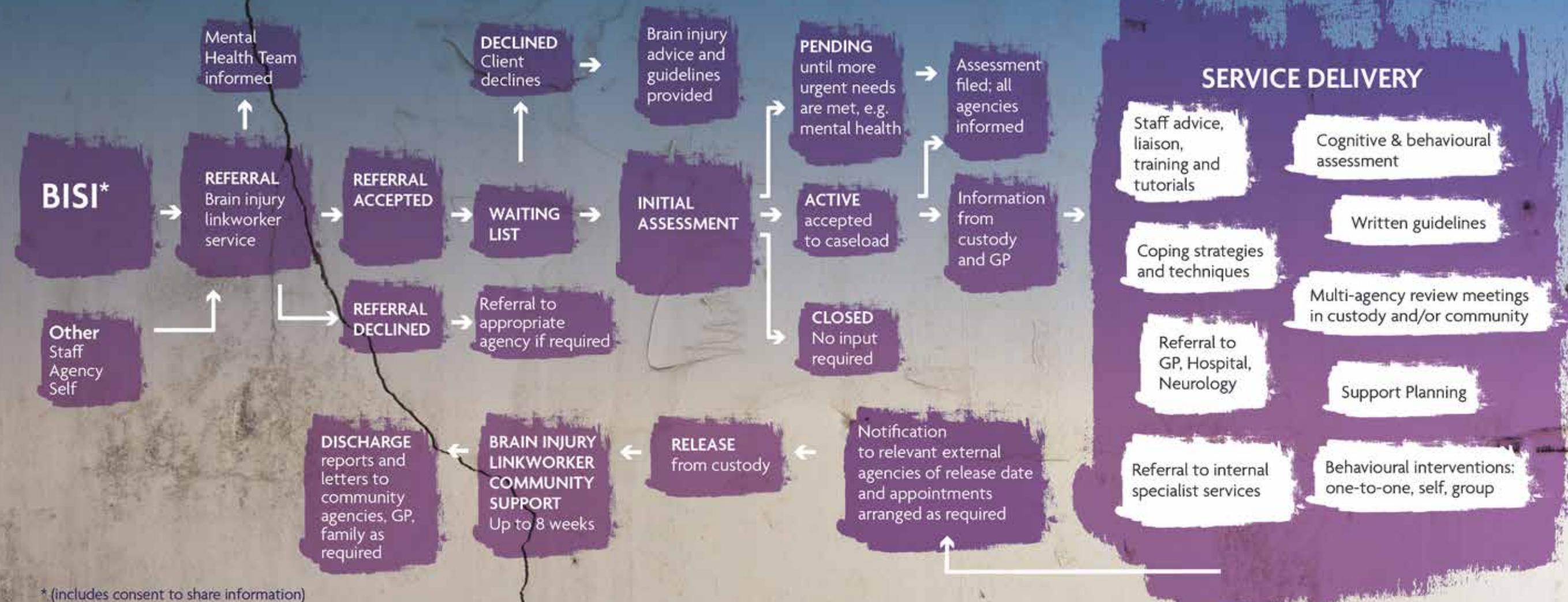
Care pathway in custody

The diagram highlights the route a person working with a linkworker takes. This starts with the Brain Injury Screening Index (BISI) completed when entering custody, followed by a possible referral to a brain injury linkworker through to discharge from services.

Did you know?

Someone with a brain injury may experience some or all of the following:

- poor memory
- aggression
- lack of concentration
- anxiety and depression
- problems sleeping
- difficulties with speech
- behavioural problems
- lack of motivation



Impact

Increased access to services

Supporting service users to engage with other services is an essential feature of the linkworker service as many of our service users struggle to motivate themselves to access services independently. Service users often lack the insight into the impact their problems may have on their life, such as memory problems, which can prevent them from seeking help. Initiation problems and a lack of insight are characteristics often seen for people with brain injury.

- Since its inception the linkworker service has developed a network of over 50 specialist support services and worked directly with agencies in the development of support plans, referring service users for further support during their prison sentence and following release
 - Over one third of service users are referred to a GP for further assessment and/or treatment for problems such as seizures. Engagement with GPs is essential as they facilitate access to specialist services, such as neurology
 - Providing the GP with information, gaining health information from them and/or supporting the service users to explain their problems to a GP has been a key driver in improved health outcomes for our service users
- Referrals are also routinely made to:
- mental health, psychiatric and psychological services
 - local housing and substance misuse support, as well as referrals to adult social care
 - specialist brain injury rehabilitation services and the community linkworker

Increased health and wellbeing of offenders

Through personalised one-to-one work with offenders and working within a network of support services, the linkworker is able to contribute to the increased health and wellbeing of offenders. In particular:

- strategies are put in place for the individual to improve memory and become more independent. This can reduce pressure on close family and friends who may be providing high levels of support to them at home and in the community
- facilitating access to appropriate services for those reluctant or less able to do so. This includes specialist housing provision more suitable to support someone with a brain injury and therefore reducing the likelihood of homelessness through loss of tenancy. One-to-one motivational work has been key to help break the cycle of homelessness and offending for some offenders worked with

What people say about our service

The new brain injury programme was an exciting response to the unmet needs of the significant proportion of prisoners with a history of brain injury and attendant problems.

HM Chief Inspector of Prisons¹

A new brain injury service was a very useful adjunct to support the significant proportion of prisoners coping with the consequences of brain injury. The brain injury service gave prisoners with a previously undiagnosed brain injury effective support to cope and better comply with their sentence plan.

HM Chief Inspector of Prisons¹¹

The brain injury service adds real value to us at HMP Leeds by providing tailored support to those with some of the most complex of needs. It is an innovative way to provide support as we look to continually enhance safer custody, working more closely with experts in their field like The Disabilities Trust Foundation.

Susan Kennedy, Governor of HMP Leeds

...a massive impact, knowing prisoners can be assessed for their needs and will have on-going support while here and on release if needed.

Linkworker contact, HMP Leeds

Forging links

Impact of linkworker service on organisations engaged with¹²:

Without the linkworker service the client would not have gained any specialist input regarding his head injury needs while in prison.

Linkworker contact, HMP Leeds

[Working with the linkworker] has been brilliant...It's made me more aware of the problems I've had since my head injury, and more motivated to change these... I'm noticing when I'm getting frustrated and I'm paying more attention to it as I didn't realise it was a problem before. I've also been using my memory strategies and it's been helping me achieve the things I wanted to.

Service user, HMP Leeds

The support from the linkworker has been great and it's helped me in a big way. It's answered a lot of questions for me, all the materials have helped increase my understanding [and helped me to] understand in depth...

Before I'd struggle on things, even the basic things... My memory strategies have helped a great deal. Before, I was always forgetting things, but now I know what I've got to do...

Before, I wouldn't have bothered, or thought about finding things out... It's nice to know people care and if there were more people like [the linkworker] in jail, I'd get more answers.

Service user, HMP Leeds

Reassurance and confident to know a specialist agency is there to address service users who suffer with brain injuries.

Linkworker contact, HMP Leeds

All respondents believed a linkworker service would be of benefit to other prisons

All respondents believed the involvement of the linkworker service led to better outcomes for their client(s)

All respondents reported that the linkworker service was very valuable

¹ Report on unannounced inspection of HMP Leeds, January 2013 by HM Chief Inspector of Prisons [Health Services].

¹² In September 2014 we conducted an online feedback survey with those we work with in HMP Leeds and the local community. The survey received a 40% response rate, with 8 responses from 20 valid, person specific email addresses.

What is available for professionals?

The Foundation provides bespoke training for professionals who support people at risk of homelessness, offenders and ex-offenders, to raise awareness of the problems individuals can face if suffering from a brain injury and to provide the tools necessary to support them¹⁴.

The delivery of awareness training to professionals within prisons and the community has allowed us to support people with brain injuries beyond our service delivery, who may not have been able to access the service directly.

To date we have delivered brain injury training to around 850 professionals¹⁵:

- 12 sessions delivered to 170 staff in community organisations working with people at risk of homelessness, predominantly in Leeds and London
- 12 sessions of brain injury training have been delivered to 130 staff members at YO1 Wetherby and YO1 Hindley. This includes prison staff and healthcare professionals
- 10 sessions of brain injury training have been delivered to nearly 140 staff members within HMP Leeds, including prison officers and healthcare professionals

- Around 200 staff trained from probation services, Police and Her Majesty's Inspectorate of Prisons
- Around 140 staff in other prisons, Youth Offending Teams and secure training centres for children and young people
- 60 forensic psychologists across the North and Midlands regions

I found the presentation on brain injury fascinating. One of the best presentations I have seen at development days in four years.

Attendee at brain injury training

850

professionals trained

What's next?

Reducing reoffending

Research has highlighted the link between brain injury and reoffending¹⁴. This service aims to contribute towards reoffending and work is underway to gain access to reoffending rates of our service users. Support is planned for service users in the community upon release, in order to continue the work started in custody. Where appropriate, service users can be referred to the Foundation's Community linkworker in Leeds.

Supporting education, employment and training

Many people with brain injuries find it difficult to engage with employment and education following their injury. In addition to this, many lead chaotic lifestyles and have offending histories. The combination of these factors means they can be a long way from education, employment or training. Our linkworkers are able to put strategies in place to help them remember their appointments, such as Jobcentre Plus, and provide support to ensure their benefits are set up correctly. Work is underway to increase partnerships with community organisations that could help service users access their hobbies or voluntary work following release, as a step towards a longer term goal of education, employment or training.

Future projects

- The Disabilities Trust Foundation will produce a proof of concept paper based on a selection of service users we have worked with to evidence the impact of the service
- An audit is underway at HMYOI Wetherby to measure the impact of the linkworker service on offenders

¹⁴ This covers the period from 01 August 2012 to 31 October 2014.

¹⁵ www.thedtgroup.org/foundation

William's story

In 2010 William* was admitted to hospital with a traumatic brain injury following an assault. After four months of in-patient rehabilitation William was discharged into his mother's care. In 2012 William was assessed for brain injury rehabilitation services although this did not result in access to a service.

The following year William committed an offence. On entering remand prison he completed the brain injury screening index (BIS) and was referred to our brain injury linkworker service. He had below average memory functioning, often forgetting names, appointments and regularly misinterpreted information that was given to him. He had a weakness in his left arm and left side of his body as a result of his injury leaving him unable to dress independently or carry his tray for meals. The linkworker worked with William for six months to develop strategies to support his brain injury needs around memory functioning and information interpretation.

Following a full neurological assessment arranged by the linkworker,

recommendations were presented to the court. William was given an 18-month suspended sentence and was transferred to a specialist rehabilitation service where he engaged in intense support from The Disabilities Trust.

Today William lives independently and has a girlfriend with whom he socialises. He sees his probation officer monthly and has help from his mum to do his shopping, but no longer receives additional support. In the future he hopes to use a gym again and start work. His memory and confidence in social situations is much improved which he attributes to the intensive support received at The Disabilities Trust's specialist brain injury rehabilitation service¹⁵. To date he has not re-offended.

¹⁵ Brain Injury Rehabilitation Trust, part of The Disabilities Trust.
¹⁶ Oddy, M., & Ramos, S. D. S. (2013). The clinical and cost-benefits of investing in neurobehavioural rehabilitation: A multi-centre study. *Brain Injury*, 27, 1500-1507.

¹⁷ It is not possible to know what sentence William would have received had he not been given a suspended sentence. However, for the purposes of this calculation we have assumed the maximum tariff of 5 years for the type of offence committed.

2010

December 2010:
Discharged following 4 months of hospital in-patient rehabilitation.
4 months in-patient rehabilitation £35,280

August 2010:
Admitted to hospital with a traumatic brain injury following an assault. He received surgery for a skull fracture and an intracranial haemorrhage.

2011

April 2012:
Assessed for brain injury rehabilitation services although this did not result in access to the services.
No cost for assessment

**Arrested by Police
£2,149**

2012

March 2013:
Entered prison, completed the brain injury screening index (BIS) and was referred to the brain injury linkworker service.
6 months in prison £14,515

April to September 2013:
Worked with linkworker in prison.
6 months linkworker support £704

September 2013:
Given an 18-month suspended sentence (supervision order) on the condition that intensive brain injury support was accessed.

September 2013 to February 2014:
The Disabilities Trust, Brain Injury Rehabilitation Trust.
6 months specialist rehabilitation £56,888

February 2014 to date¹⁶:
Living in the community.
Community linkworker support for 12 weeks £3,840

September 2013:
Following a full neurological assessment recommendations were presented to the court for intensive brain injury rehabilitation by Community Social Work Team and Specialist Continuing Care Team.
No cost for neurorehabilitation assessment, Magistrates Court hearing £1003, Crown Court attendance £11,344, linkworker and Project Manager support £223

**Total cost of support
£125,946**

The cost of crisis

Providing services to people in custody and those at risk of homelessness means that the people we support have often reached a point of crisis prior to engaging with us. However, early intervention has been shown to achieve positive outcomes and long-term cost savings to society.¹⁷ For William, we estimate the financial cost of immediate intervention would have been in line with those incurred. However, he would have had a better outcome from the outset with regards to his brain injury and may not have committed an offence.

The linkworker's intervention and recommendations presented to court meant that William was diverted away from more time in custody. A prison sentence could have incurred additional costs amounting to £209,000.¹⁸ These calculations do not take into account the human and personal costs of an offence being committed.

DATE	TOUCH POINTS	ACTUAL	ALTERNATIVE ROUTE 1: Early intervention and rehabilitation	ALTERNATIVE ROUTE 2: prison instead of rehabilitation
Dec-10	4 months in-patient rehabilitation	£35,280 ¹⁹	£35,280	£35,280
Apr-12	Assessment for Neurorehabilitation programme at The Disabilities Trust's Brain Injury Rehabilitation Unit	£0 ²⁰	£0	£0
Mar-13	Recommendation: 12 week assessment period of structured neurorehabilitation	N/A	£26,256 ²¹	N/A
Mar-13	Arrested by Police	£2,149 ²²	N/A	£2,149
	6 months in prison	£14,515 ²³	N/A	£14,515
	Specialist Brain Injury linkworker	£704 ²⁴	N/A	N/A
Sep-13	Assessment for Neurorehabilitation programme at Brain Injury Rehabilitation Unit	£0 ²⁵	N/A	N/A
	Court Hearing at a Magistrates Court	£1,003 ²⁶	N/A	£1,003
	Crown Court attendance	£11,344 ²⁷	N/A	£11,344
Sep-13	linkworker and Social Exclusion Project Manager support (1 day)	£223 ²⁸	N/A	N/A
Sept-14	6 month neurorehabilitation programme at The Disabilities Trust's Brain Injury Rehabilitation Unit	£56,888 ²⁹	£56,888	N/A
	The Disabilities Trust's Community Services support (6 months)	£3,840 ³⁰	£3,840	N/A
	Maximum sentence 5 years imprisonment	N/A	N/A	£145,145 ³¹
TOTAL		£125,946	£122,246	£209,436

¹⁹ MEAM (2014) Evaluation of the MEAM pilots – Year Two. Appendix 7 – Unit Costs p.36. www.probonoeconomics.com/sites/probonoeconomics.com/files/files/reports/Update%20on%20findings%20of%20MEAM%20pilots%202014.pdf

²⁰ The Disabilities Trust Brain Injury Rehabilitation Trust 2014.

²¹ Brain Injury Rehabilitation Unit residential Neurorehabilitation programme priced at £2188pw.

²² MEAM (2014) Appendix 7 – Unit Costs p.35.

²³ MOJ (2013) Costs per place & costs per prisoner: National Offender Management Service Annual Report & Accounts 2012-13 Management Information Addendum. P.3 Direct Resource Expenditure, cost per prisoner at a male category B prison. £29,029 per year.

²⁴ The Disabilities Trust Community Services. Based on an average cost per hour of £16. Frequency of support: twice weekly for five months.

²⁵ The Disabilities Trust Brain Injury Rehabilitation Trust 2014.

²⁶ MEAM (2014) Appendix 7 – Unit Costs p.35.

²⁷ MEAM (2014) Appendix 7 – Unit Costs p.35.

²⁸ The Disabilities Trust Foundation 2014. 1 day of a linkworker and Project Manager costs.

²⁹ Brain Injury Rehabilitation Unit residential Neurorehabilitation programme priced at £2188pw.

³⁰ The Disabilities Trust Community Services (20 hours per week for 12 weeks at £16/hour).

³¹ MOJ (2013) Costs per place & costs per prisoner: National Offender Management Service Annual Report & Accounts 2012-13 Management Information Addendum. P.3 Direct Resource Expenditure, cost per prisoner at a male category B prison of £29,029 per year.

Get BISI!

Links between traumatic brain injury (TBI), offending and homelessness show the importance of screening and delivering appropriate rehabilitation and support.

Until now, there were no simple routine procedures for screening, raising awareness for TBI in prison or offender health services in England and Wales, unlike Learning Disabilities or Mental Health, yet our research indicates that nearly half of all prisoners experience a significant history. With a clear association between the results of the BISI and objective measures of neuropsychological functioning, we propose that the BISI screening measure is used routinely in prison and throughout criminal justice services to identify offenders with a history of TBI.

Early identification can ensure those with a TBI, who may be struggling with memory loss, aggression, lack of concentration, anxiety and depression, are offered the right support. Such help could prove invaluable in the challenge to reduce reoffending.

Action needed

Screening

Do you know if the people you are working with have a brain injury? If not, we recommend talking to us about using the BISI to screen for brain injury among your service users.

Training

Would you know how to work with someone with a brain injury? Professional training can help your staff understand how to work more effectively with someone with a brain injury.

Service

Do you know where to refer someone for further support with their brain injury? It may be that specialist support is not available in your area and you require a specialist brain injury linkworker.

Please contact us for further information about the BISI, training and our linkworker service: foundation@thedtgroup.org

www.thedtgroup.org/foundation



The Disabilities Trust Foundation

The Disabilities Trust is a leading national charity, providing innovative services, rehabilitation and support solutions for people with profound physical impairments, acquired brain injury and learning disabilities as well as children and adults with autism. The Foundation is the division within the Trust that aims to make a difference to the lives of those who are unable to access our core services. The Foundation enables the Trust to share its expertise and knowledge through research and the piloting of new ideas. Our project work is designed to initiate and enhance good practice and direct or influence policy within our areas of expertise - brain injury, learning disabilities, autism and physical disabilities.

Founded in 1979, The Disabilities Trust is a company limited by guarantee incorporated in England and Wales under 2334589 and registered as a charity in England and Wales under 800797 (BIRT: 800797-1) and in Scotland under SC038972 (BIRT: SC043579). Registered office as shown.

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