



WRITTEN EVIDENCE FROM THE DISABILITIES TRUST

JUSTICE SELECT COMMITTEE INQUIRY INTO PRISON REFORM

1. EXECUTIVE SUMMARY

1.1 Brain injury can significantly increase the risk of anti-social behaviour leading to law-breaking and incarceration. Research shows the prevalence of brain injury in prisoners may be as high as 60%¹ and due to the effects of these injuries, traditional means to reduce rates of recidivism may therefore be ineffective.

1.2 Our free clinically validated tool, the 11-question Brain Injury Screening Index (BISI®), enables prison staff to quickly and easily identify prisoners with a history of brain injury. **We recommend the use of the BISI in all prisons and young offender settings.**

1.3 Initiatives such as our highly praised prison Linkworker scheme and associated prison staff training programme support the individual with brain injury and aim to reduce reoffending rates. Prisoners should be supported by staff appropriately trained in understanding and managing the behaviour of prisoners with brain injury. **We recommend tailored support for prisoners with brain injury and a training programme for all prison and young offender settings staff.**

1.4 Appropriate intervention has been shown to achieve positive outcomes and long-term cost savings to society. The long-term costs associated with brain injury in a young offender are at £345,000 more than double that of a non-offender². In our experience specialist brain injury rehabilitation in a healthcare rather than custodial setting can save in excess of £80,000 per individual in the short-term³. **We believe the effective identification and management of Traumatic Brain Injury to be a vital area requiring dedicated attention as part of the prison reform programme.**

¹ Farrer, T. J., & Hedges, D. W. (2011), *Prevalence of traumatic brain injury in incarcerated groups compared to the general population: A meta-analysis*. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 35(2), 390–394. <http://doi.org/10.1016/j.pnpbp.2011.01.007>

Shiroma, E. J., Ferguson, P. L., & Pickelsimer, E. E. (2010), *Prevalence of traumatic brain injury in an prisoner population: A meta-analysis*. Journal of Correctional Health Care, 16(2), 147–159. <http://doi.org/10.1177/1078345809356538>

² Centre for Mental Health (2016), *Traumatic brain injury and offending: An economic analysis*, <http://www.barrowcadbury.org.uk/wp-content/uploads/2016/07/Traumatic-brain-injury-and-offending-an-economic-analysis.pdf>

³ The Disabilities Trust (2015), *Brain Injury Linkworker Service*, http://www.thedtgroup.org/media/4082/160115_linkworker_service_report.pdf

2. BRAIN INJURY PREVALENCE

2.1 Research evidence demonstrates that 51 to 60% of adult male prisoners (and 50% of young prisoners) have a history of Traumatic Brain Injury (TBI)⁴. Our own research has found that 47% of adult male prisoners screened on admission to prison reported a history of TBI⁵.

2.2 More widely, TBI is the leading cause of death and disability in people under the age of forty, and costs the UK economy around £15 billion a year. A&E departments in the UK see about 900,000 head injury presentations a year, including around 100,000 classified as severe, and it is estimated that there are up to 1.3 million people in the UK living with a TBI-related disability⁶.

3. IMPACT OF BRAIN INJURY ON OFFENDING

3.1 Brain injury can result in impaired cognitive function and cause difficulties with impulsivity, aggression, poor judgement, problem solving, concentration, short- and long-term memory and understanding consequences. Traditional means to reduce rates of recidivism may therefore be ineffective.

3.2 Though brain injury should not be considered a mental health issue, it can be a contributing factor to poor mental health. Our research has found that prisoners with a history of TBI are 3.4 times more likely to suffer from depression and anxiety than those without a history of TBI⁷.

4. ENABLING ENGAGEMENT WITH REHABILITATION

4.1 Prisoners with brain injury should be considered a vulnerable group, similar to those with mental health issues or learning disabilities, and staff and agencies working with the prisoner should be notified of their history of TBI. With tailored support from a Linkworker or brain injury trained staff, simple strategies such as memory prompts or anger management techniques can be taught and a network of support from probation, social care, health and education professionals put in place pre- and post-release.

⁴ Farrer, T. J., & Hedges, D. W. (2011), *Prevalence of traumatic brain injury in incarcerated groups compared to the general population: A meta-analysis*. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 35(2), 390–394. <http://doi.org/10.1016/j.pnpbp.2011.01.007>
Shiroma, E. J., Ferguson, P. L., & Pickelsimer, E. E. (2010), *Prevalence of traumatic brain injury in an prisoner population: A meta-analysis*. Journal of Correctional Health Care, 16(2), 147–159. <http://doi.org/10.1177/1078345809356538>

⁵ Pitman I, Haddlesey C, Ramos SD, Oddy M, Fortescue D. (2014), *The association between neuropsychological performance and self-reported traumatic brain injury in a sample of adult male prisoners in the UK*, Neuropsychological Rehabilitation: An International Journal, DOI: [10.1080/09602011.2014.973887](https://doi.org/10.1080/09602011.2014.973887)

⁶ Centre for Mental Health (2016), *Traumatic brain injury and offending: An economic analysis*, <http://www.barrowcadbury.org.uk/wp-content/uploads/2016/07/Traumatic-brain-injury-and-offending-an-economic-analysis.pdf>

⁷ Pitman I, Haddlesey C, Ramos SD, Oddy M, Fortescue D. (2014), *The association between neuropsychological performance and self-reported traumatic brain injury in a sample of adult male prisoners in the UK*, Neuropsychological Rehabilitation: An International Journal, DOI: [10.1080/09602011.2014.973887](https://doi.org/10.1080/09602011.2014.973887)

5. THE BRAIN INJURY SCREENING INDEX (BISI®)

5.1 There is no standard or statutory screening for brain injury at the point of entering the prison system in England and Wales. The Disabilities Trust has developed the Brain Injury Screening Index (BISI®), an 11-question screening tool to help identify people with a brain injury within prison, probation, community and rehabilitation settings. The BISI was developed for use by all levels of practitioner and is available free of charge through our website⁸.

5.2 The Scottish National Prisoner Healthcare Network has recommended to the Justice Committee in Holyrood that the BISI be adopted as a screening tool in the Scottish prison system⁹.

6. OUR PRISON LINKWORKER PROJECTS

6.1 Comprehensive findings from our early Linkworker projects are available on our website¹⁰, as well as an independent evaluation of the project with young prisoners aged 15-21¹¹. The Linkworker service and associated training for prison staff has been successfully delivered within HMP Leeds, HMYOI Wetherby and HMYOI Hindley. A further Trust Linkworker service is currently being delivered within a category B prison in northern England, and we are soon to begin delivery within a female prison in the Midlands. The Linkworker service has also worked effectively in the community.

6.2 We have screened around 1,000 prisoners using the BISI, provided one-to-one support to over 100 prisoners where a history of TBI was identified through screening, and delivered brain injury training to over 1,000 professionals.

6.3 Following an intake assessment using the BISI, prisoners who are identified as having a history of TBI are referred by prison staff to the Linkworker. The service is designed to sit within existing structures and to enhance, not duplicate, services already in place. There are wide-ranging benefits for both the prison and the individual in adopting a Linkworker or similar scheme tailored to the custodial setting.

6.4 Benefits for the prison and staff can include a prisoner population with fewer behavioural incidents and increased engagement in structured day-to-day activities, leading to increased wellbeing; staff trained in understanding brain injury, resulting in greater confidence to effectively manage the prisoners they support; increased job satisfaction and staff retention through the acquisition of new skills and knowledge.

⁸ The Disabilities Trust, 'The Brain Injury Screening Index', <http://www.thedtgroupp.org/foundation/about-the-foundation/brain-injury-screening-index/>

⁹ Scottish National Prisoner Healthcare Network (2016), *Brain Injury and Offending* <http://www.nphn.scot.nhs.uk/wp-content/uploads/sites/9/2016/07/NPHN-Brain-Injury-and-Offending-Final-Report.pdf>

¹⁰ The Disabilities Trust (2016), *Brain Injury Linkworker Service 2016 Edition*, http://www.thedtgroupp.org/media/159358/foundation-outcome-report_web.pdf

¹¹ Williams H., Chitsabesan P., (2016) *Young People with Traumatic Brain Injury in custody: An evaluation of a Linkworker Service for Barrow Cadbury Trust and The Disabilities Trust* http://www.thedtgroupp.org/media/159401/disability_trust_linkworker_2016lores.pdf

6.5 Benefits for the individual can include an awareness (possibly for the first time) that they have sustained a brain injury; an understanding of the effect this may have had on their cognition, behaviour and emotions and introduction of coping strategies; establishment of links to health, social care, employment and housing professionals on release to promote increased access to these services when appropriate; maximisation of their chance of successful rehabilitation, and reduction of the chances of reoffending.

CASE STUDY

In 2010 Byron was admitted to hospital with a traumatic brain injury following an unprovoked assault. He spent time in a coma and received four months of in-patient rehabilitation in hospital before being discharged to his mother's care. He was assessed for brain injury rehabilitation but this did not result in a referral.

In 2013, three years after he sustained his brain injury, Byron committed an offence. On entering remand prison he was screened using the BISI and was referred to our brain injury Linkworker service. The Linkworker worked with Byron 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. Byron was given an 18-month suspended sentence and was transferred to a specialist brain injury rehabilitation service where he engaged in intense support from The Disabilities Trust.

Today Byron lives independently and no longer receives additional support. His memory and confidence in social situations is much improved and to date he has not reoffended.

7. COST SAVINGS ASSOCIATED WITH APPROPRIATE REHABILITATION

7.1 The Linkworker's intervention and recommendations presented to court meant that Byron was diverted away from more time in custody. A prison sentence could have cost up to £209,000, over £80,000 more expensive than the route taken by Byron, and nearly £90,000 more expensive than an initial referral to rehabilitation at the point of the brain injury¹². These calculations do not take into account the human and personal costs of an offence being committed. Full costings are available in the Appendix. A short video interview with Byron is available on our website¹³ and his story has been featured on BBC Radio 4's 'You and Yours' programme¹⁴.

¹² The Disabilities Trust (2015), *Brain Injury Linkworker Service*, http://www.thedtgroup.org/media/4082/160115_linkworker_service_report.pdf

¹³ The Disabilities Trust, 'Brain injury support can help people change their lives', <http://www.thedtgroup.org/foundation/news/brain-injury-support-can-help-people-change-their-lives/>

¹⁴ BBC Radio 4, 'You and Yours Friday 8th July 2016', <http://www.bbc.co.uk/programmes/b07hwmkr>

7.2 The Centre for Mental Health has estimated long-term costs of TBI for an injury incurred at age 15. In the general population, this is estimated at around £155,000, compared to £345,000 per case among young offenders¹⁵.

8. CONCLUSIONS

8.1 Introducing screening to identify the high numbers of prisoners with brain injury should be a priority. **We recommend the use of the BISI in all prisons and young offender settings.**

8.2 Prisoners should be supported by staff appropriately trained in understanding and managing the behaviour of prisoners with brain injury. The Disabilities Trust has a proven record of providing brain injury training to prison staff and delivering Linkworker support in prisons and young offender settings. **We recommend tailored support for prisoners with brain injury and a training programme for all prison and young offender settings staff.**

8.3 The Disabilities Trust can provide further evidence based on our experiences and research. **We believe the effective identification and management of Traumatic Brain Injury to be a vital area requiring dedicated attention as part of the reform programme.**

9. About The Disabilities Trust

9.1 The Disabilities Trust is a national charity, providing care, rehabilitation and support for people with complex physical disabilities, acquired brain injury and learning disabilities as well as children and adults with autism.

9.2 Our Disabilities Trust Foundation works with people who are unable to access the Trust's core services, enabling the charity to share its experience and knowledge through research and the piloting of new ideas.

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¹⁵ Centre for Mental Health (2016), *Traumatic brain injury and offending: An economic analysis*, <http://www.barrowcadbury.org.uk/wp-content/uploads/2016/07/Traumatic-brain-injury-and-offending-an-economic-analysis.pdf>

APPENDIX – Cost-savings associated with neurorehabilitation instead of incarceration – Byron case study

DATE	TOUCH POINTS	ACTUAL	ALTERNATIVE ROUTE 1: Early intervention and rehabilitation	ALTERNATIVE ROUTE 2: Prison instead of rehabilitation
Dec 2010	4 months in-patient hospital rehabilitation	£35,280 ⁱ	£35,280	£35,280
Apr 2012	Assessment for neurorehabilitation programme at The Disabilities Trust's Brain Injury Rehabilitation Unit	£0 ⁱⁱ	£0	£0
Mar 2013	Recommendation: 12 week assessment period of structured neurorehabilitation	n/a	£26,256 ⁱⁱⁱ	n/a
Mar 2013	Arrested by police	£2,149 ^{iv}	n/a	£2,149
	6 months in prison	£14,515 ^v	n/a	£14,515
	Specialist Brain Injury Linkworker	£704 ^{vi}	n/a	n/a
Sept 2013	Assessment for neurorehabilitation programme at Brain Injury Rehabilitation Unit	£0 ^{vii}	n/a	n/a
	Court Hearing at a Magistrate Court	£1,003 ^{viii}	n/a	£1,003
	Crown Court attendance	£11,344 ^{ix}	n/a	£11,344
Sept 2013	Linkworker and Social Exclusion Project Manager support (1 day)	£223 ^x	n/a	n/a
Sept 2014	6 month neurorehabilitation programme at The Disabilities Trust's Brain Injury Rehabilitation Unit	£56,888 ^{xi}	£56,888	n/a
	The Disabilities Trust's Community Services support (6 months)	£3,840 ^{xii}	£3,840	n/a
	Maximum sentence 5 years imprisonment	n/a	n/a	£141,145 ^{xiii}
TOTAL:		£125,946	£122,264	£209,436
	COMPARISON TO ACTUAL SPENDING:		£3,682 cheaper	£83,490 more expensive

ⁱ Probono Economics (2014) *Evaluation of the MEAM [Making Every Adult Matter] pilots – Update on our findings Year Two*, Appendix 7 – Unit Costs, p.36. <http://www.probonoeconomics.com/sites/probonoeconomics.com/files/files/reports/Update%20on%20findings%20of%20MEAM%20pilots%202014.pdf>

ⁱⁱ The Disabilities Trust Brain Injury Rehabilitation Trust 2014.

ⁱⁱⁱ Brain Injury Rehabilitation Unit residential neurorehabilitation programme priced at £2,188 per week.

^{iv} Probono Economics (2014)

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

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

^{vii} The Disabilities Trust Brain Injury Rehabilitation Trust 2014.

^{viii} Probono Economics (2014)

^{ix} Probono Economics (2014)

^x The Disabilities Trust Foundation 2014. 1 day of a Linkworker and Project Manager costs.

^{xi} Brain Injury Rehabilitation Unit residential neurorehabilitation programme priced at £2,188 per week.

^{xii} The Disabilities Trust Community Services. Based on an average cost per hour of £16. Twenty hours per week for 12 weeks.

^{xiii} MOJ (2013)