

STATES OF JERSEY



COMPULSORY WEARING OF CYCLE HELMETS

Lodged au Greffe on 25th January 2010
by Deputy A.K.F. Green of St. Helier

STATES GREFFE

PROPOSITION

THE STATES are asked to decide whether they are of opinion –

to request the Minister for Transport and Technical Services to bring forward legislation to ensure that cyclists are required to wear a suitable safety helmet whilst cycling in the case of –

- (a) persons aged under the age of 18 years;
- (b) persons aged 18 years and over.

DEPUTY A.K.F. GREEN OF ST. HELIER

REPORT

1. Introduction

I first learned about traumatic brain injury when my son Christopher was knocked off a bicycle at the age of nine. It is a miracle that he survived and 21 years later he is still struggling with the consequences of his brain injury.

This experience has led me to believe passionately that everyone should wear a helmet while cycling for their own protection and to reduce the expenditure of the state emergency and medical services. Such legislation would not help my family but will help others avoid the pain and anguish we have been through.

Whilst it is my view that it should be compulsory for all cyclists to wear a suitable safety helmet I recognise that this may not be acceptable to the Assembly. For this reason option (b) exists to make it compulsory only for children under 18 to wear a helmet while cycling. Adults can make an informed decision about whether or not to wear a helmet. Children do not possess the ability to weigh up the risks and benefits associated with the issue and may have other reasons, such as image, for not wearing protective headgear. I considered whether this age should be (under) 16 or 18 years of age and concluded that following the recent 'naming and shaming' debate that under 18 was the appropriate age.

I have no desire to criminalise otherwise law-abiding young people. I have therefore given considerable thought on how my objectives could be achieved; that is the protection of the young person's brain. The simple way forward would be to have a system of fixed penalty. In a similar vein to the parking fine it would be the failure to pay the penalty or persistent flouting of the law which could result in a parish hall or court appearance.

2. Expert opinion

The following quotes are provided by expert bodies and individuals –

(i) British Medical Association (BMA)

“The BMA, as a part of its policy to improve safe cycling supports compulsory wearing of cycle helmets when cycling for children and adults”.

(ii) Nick Payne, Consultant A&E Paediatrician, Jersey General Hospital

“Too many children from Jersey are injured in cycling accidents whilst not wearing helmets. It is vital that we do all we can to protect our children from the risk of lifelong disability and even death and it is therefore common sense to ensure they wear helmets while cycling.

One of the aims of Jersey's new transport policy is to encourage more people to cycle, with particular emphasis on getting children to cycle to school. More cyclists will inevitably mean more accidents so now is the time to act and introduce this new law.”

(iii) Association Paediatric Emergency Medicine (APEM)

“Children face an estimated 70 per cent reduction in brain function after a traumatic brain injury and some never recover. As an expert and a parent I feel it is just common sense- anything that can protect our children from this risk should be compulsory.”

(iv) Dr. Andy Eynon, Director of Neurosciences Intensive Care, Wessex Neurological Centre, Southampton

“Accident victims on the islands of Jersey and Guernsey who sustain serious head or spinal injuries are transferred to Southampton for emergency treatment. As a result, I see first-hand the effects such injuries have on both the patient and their loved ones.

Cycle helmets offer vital protection to the brain. If every cyclist wore a helmet, the number killed or seriously injured each year would be reduced.

Prevention is far cheaper than treatment. It costs society around £25,000 for an individual to be transferred to Southampton, operated on, treated in our intensive care unit and then cared for on our wards. If you consider the costs of rehabilitation plus loss of income from the individual and often their immediate family, the figure can run into many millions of pounds. In contrast, a decent cycle helmet will cost less than £40.”

(v) World Health Organisation (WHO)

“Millions of people use bicycles for transportation and for recreation. A needlessly large number of cyclists are killed or permanently disabled as a result of a head injury received from a fall or during a crash. Regrettably, many of these head injuries could have been prevented or their severity reduced through the use of a simple and inexpensive helmet.”

(vi) Headway – the brain injury association

“The effects of brain injury can be devastating and last a lifetime. We all think ‘it will never happen to me’, but it can happen to anyone at any time. It is vital we do all we can to reduce the prevalence of brain injury in society. Ensuring cyclists wear helmets would help us achieve this objective.”

3. Cycle helmet Laws in other jurisdictions

Cycle helmet Laws have been introduced to a number of jurisdictions across the world. Legislators within Australia, New Zealand, USA, Canada, Iceland and Sweden have all introduced Laws. Research demonstrates that these Laws have helped to significantly reduce the numbers of cyclists sustaining brain injuries.

The following section provides a summary of the current international situation and, where available, research evidence, details of which are included in *Appendix 1*.

(a) AUSTRALIA

In Australia, bicycle helmets are mandatory for all cyclists in the following states and territories –

Australian Capital Territory
New South Wales
Victoria
Queensland
South Australia
Western Australia
Tasmania

Bicycle helmets are mandatory for children only in the following territory –
Northern Territory

Supporting evidence from Australia

- (i) Evaluation of the Bicycle Helmet Wearing Law in Victoria During its First 12 Months: *M Cameron et al, Monash University Accident Research Centre, Report 32, 1992*
- (ii) Do Bicycle Safety Helmets Reduce Severity of Head Injury in Real Crashes?: *Margaret Dorsch et al, Accident Analysis & Prevention Vol. 19, No 3 1987*
- (iii) Effectiveness of bicycle helmets in preventing head injury in children: case-control study: *S Thomas et al, British Medical Journal Vol. 308, 15 January 1994*

(b) NEW ZEALAND

Cycle helmet wearing became mandatory for all cyclists in 1994. In the 5 years after 1994, average annual injury totals were 707 – a reduction of 29%.

Supporting evidence from New Zealand

Cycle Helmet Effectiveness in New Zealand: *Accident Analysis & Prevention Vol 31 No 6, 1999, L J Povey et al*

(c) USA

A total of 22 states with a combined population of over 160 million people have passed cycle helmet legislation. All of them are concerned with child cyclists. These are as follows –

Alabama
California
Connecticut
Delaware
District of Columbia
Florida

Georgia
Hawaii
Louisiana
Maine
Maryland
Massachusetts
New Hampshire
New Jersey
New Mexico
New York
North Carolina
Oregon
Pennsylvania
Rhode Island
Tennessee
West Virginia

The legislation varies between states with some (e.g. California) requiring cyclists up to the age of 18 years to wear a helmet whilst others, such as Louisiana, set the age as low as 12 years.

Supporting evidence from USA

- (i) Bicycle Helmet Safety Institute: <http://www.helmets.org/mandator.htm>
- (ii) A case-control study of the effectiveness of bicycle safety helmets: *New England Journal of Medicine*, May 1989, Thompson et al
- (iii) Bicycle Helmet Safety Institute: <http://www.helmets.org/mandator.htm>
- (iv) A Prospective Analysis of Injury Severity Among Helmeted and Nonhelmeted Bicyclists Involved in Collisions with Motor Vehicles: *Trauma Vol. 31*, November 1991, Spaite et al
- (v) The effect of Bicycling helmets in Preventing Significant Bicycle-Related Injuries in Children: *Clinical Journal of Sport Medicine*, University of Calgary, 1996, K A Finvers et al
- (vi) State Level Estimates of the Incidence and Economic Burden of Head injuries stemming from Non-Universal Use of Bicycle Helmets: *Injury Prevention*, Vol 8(1) 2002, J Schulman et al

(d) CANADA

Like America, Canada has provincial and local cycle helmet laws. The following provinces require all cyclists to wear helmets –

British Columbia
Nova Scotia
New Brunswick

The following provinces require cyclist under 18 years to wear cycling helmets –

Alberta
Ontario

Supporting evidence from Canada

- (i) Trends in Paediatric and Adult Bicycling Deaths Before and After Passage of a Bicycle Helmet Law: *Pediatrics – The Official Journal of the American Academy of Paediatrics*, David E. Wesson, Derek Stephens, Kelvin Lam, Daria Parsons, Laura Spence and Patricia C. Parkin
- (ii) Impact of Mandatory Helmet Legislation on Bicycle-Related Head Injuries in Children: A Population-Based Study: *Pediatrics – The Official Journal of the American Academy of Paediatrics*, Alison K. Macpherson, Teresa M. To, Colin Macarthur, Mary L. Chipman, James G. Wright and Patricia C. Parkin
- (iii) Effect of Legislation on the Use of Bicycle Helmets: *Canadian Medical Association Journal*, Vol 166 (5), 2002, J C Leblanc et al
- (iv) Bicycle-related Head Injuries Plummet: *Medical Association Journal*, Vol 13, 168(10), 2003, Natalie Dunleavy

(e) SWEDEN

In 2005, Sweden introduced a law stating all cyclists under the age of 15 must wear helmets. The Swedish Embassy in London has reported that the law has been so successful to date that consideration is being given to extending the law to include adults.

4. Supporting international meta-analysis of research

The Cochrane Library contains high-quality, independent evidence to inform healthcare decision-making. It includes reliable evidence from Cochrane and other systematic reviews, clinical trials, and more. Cochrane reviews bring the combined results of the world's best medical research studies, and are recognised as the gold standard in evidence-based health care.

(a) Helmets for Preventing Head and Facial Injuries in Bicyclists

Cochrane Review, Issue 1, 2003
D C Thompson et al

A Cochrane review considering 5 case-control studies from the UK, Australia and the USA illustrates a large and consistent protective effect from cycle helmets, reducing the risk of brain injury by up to 88% and injury to the upper and mid-face by 65%.

(b) Bicycle helmet efficacy: a meta-analysis

Accident Analysis & Prevention, Volume 33, Issue 3, May 2001, Pages 345–352
R G Attewell, K Glase and M McFadden

Based on studies from several countries published in the period 1987–1998, the authors estimate that wearing cycle helmets can reduce the incidence rate of head injury by 40%, brain injury by 42%, facial injury by 53% and fatal injury by 27%.

5. The Jersey situation

The Minister for Transport and Technical Services (TTS) has recently released the Department's sustainable transport plan.¹ The plan aims "to achieve a significant shift to more sustainable forms of travel at all times, such as walking, cycling and public transport". Section 7 of the plan also states "that a key focus of any sustainable transport policy must be walking and cycling as they are health improving physical activities which counteract our sedentary life styles that lead to chronic health problems. It is crucial that this plan does not result in increased death and disability.

Safer routes to school (SRTS) projects aim to reverse the trend toward car use for the school journey and to encourage more children to walk and cycle to school. This is done by making changes to the local infrastructure, principally by reducing traffic speeds and volumes and re-allocating road space. In addition, the projects also aim to provide safer means of travel to and from school and to raise awareness of transport, sustainability and health. SRTS projects are co-operative ventures between Island and Parish Authorities, school staff and students, parents and local residents.

Currently nearly 200 Jersey children cycle to and from school each day.² One of the factors preventing other parents from allowing their children from cycling to school is the lack of enforcement of helmet wearing.

I have been contacted (over the years) by many parents complaining that they ensure their children leave home wearing helmets, but the children remove them when out of sight of home and before arriving at school so as to avoid unkind comments being made by their peers. If every cyclist wore a helmet this wouldn't happen. One mother related a story where her son was repeatedly taunted and called "helmet boy"; this is just one example of the many reports I have received.

There is no doubt that one of the factors preventing more parents from allowing or encouraging their children to cycle to school is the risk of injury through not wearing a helmet. If we are to achieve the objectives set out by the Minister for Transport and Technical Services, we need to address these concerns and inconsistencies.

For example, young cyclists taking cycle proficiency courses must wear helmets in order to pass the test – and yet once they have passed, there is no incentive or encouragement to ever wear a helmet again.

Of course helmet wearing should not just be confined to children; adults are also at risk and should set a good example to the youngsters! In a population of 500 times

¹ *Transport and Technical Services The Sustainable transport plan*

² <http://www.eco-active.je/Transport/AtSchool/>

smaller than the UK we can expect very few deaths in cyclists, but even small numbers can still equate to a serious problem, any avoidable death is a tragedy.

In 2008 there were 105 child, cycle-related accidents recorded in Jersey's Accident and Emergency Department with various injuries. Many of those suffered minor brain injury which would potentially have been avoided if the person had been wearing a helmet. Sometimes, what initially appears to be a relatively minor injury may result in long-term debility, and there are many cases of unemployment, breakdown of relationships, homelessness and social isolation following minor traumatic brain injury.

A survey of brain injury survivors completed by the University of Exeter in conjunction with Headway – the brain injury association – showed that returning to work after sustaining a brain injury is uncommon. 64% of respondents stated that they were unemployed, with only 21% in paid employment. In addition, 78% of respondents reported a breakdown in one or more relationships since their injury, mainly losing friends and partners.³

Many accident victims never regain the quality of life that they were enjoying before the accident. As many of these survivors have the normal life expectancy, the financial burden to Health and Social Services as well as Social Security continues to grow year on year.

If we take the example of a young man aged 18 at the time of his accident and assume he will need to remain in residential care for the rest of his life, the cost to Jersey taxpayers could be a staggering £2,463,968, assuming he lives to the age of 77.23 (the average male life expectancy on Jersey). This figure is calculated using information provided by the Chief Officer for Employment and Social Security who estimates the average cost of residential care on the Island is £800 per week – or £41,600 per year. The figure would be higher if his needs were more complex.

These costs do not include any emergency flights or hospital treatment here or in the UK. Nor do they take into account that the injured individual will not be playing an active part in society. Many individuals cannot claim compensation, will not be paying tax or social security, but will be claiming benefits.

A conservative estimate of these costs would be £255,000, bringing the total cost up to £2,718,968.

Additional support for these estimates comes from leading UK law firm Stewarts Law, which has calculated the financial cost of a moderately severe brain injury (real case) as in excess of £6 million (*see Appendix 2*).

A second law firm, Irwin Mitchell, has provided 3 case studies highlighting the cost of paediatric brain injury in the UK. The three examples provided are real but anonymised cases that demonstrate the huge cost to the state and individual of a traumatic brain injury (*see Appendix 3*).

These examples illustrate the huge economic cost of traumatic brain injury to the State. However, the emotional cost to the individual and their families is incalculable.

³ *Experiences of stigma and discrimination among individuals with brain injuries, Social Neuropsychology Research Group, University of Exeter*

Health professionals experience this first-hand, and for this reason both the Accident and Emergency Paediatric Consultant at Jersey's General Hospital and the Hospital's Paediatric Consultant support the prevention of brain injury by the introduction of compulsory wearing of cycle helmets.

Contained in this report are the stories of 3 local individuals (*see Appendices 4, 5 and 6*) and one UK individual (*Appendix 7*). All of them in their own way make the case for wearing of helmets; the individuals highlighted in *Appendices 4, 6 and 7* clearly wish that they had worn a helmet on the day of their accident, whilst the young man in *Appendix 5* is very grateful that he was wearing protective headgear.

6. Financial and manpower implications

The publicity generated by the introduction of cycle helmet legislation will make it unnecessary for the States to mount a publicity campaign. However, we can provide some education, particularly to children, to explain why the new Law is necessary without additional burden to the taxpayer.

Charitable organisations in the UK have education packs that are regularly distributed to schools to explain in simple yet effective terms why they should wear helmets. Similar packs could be distributed to schools on Jersey.

It is not proposed that the police should divert manpower into enforcing cycle helmet legislation but rather deal with the issue as part of their routine patrol duties. The experience of other jurisdictions that have passed cycle helmet legislation is that this measure is broadly cost neutral.

7. Summary

By approving the proposed legislation, the States of Jersey Assembly has the opportunity to save lives and prevent lifelong disability. In addition, we can save the taxpayers of Jersey unnecessary expenditure on injuries which are preventable.

Jersey is in a unique position and could lead the way in preventing brain injury. We were the first in the British Isles to ban "bull bars", first to ban the use of mobile phones whilst driving, so let's lead the way again and protect our community, particularly our children, by agreeing to compulsory wearing of cycle helmets.

APPENDICES

APPENDIX 1

- (i) **Evaluation of the Bicycle Helmet Wearing Law in Victoria During its First 12 Months**

M Cameron et al, Monash University Accident Research Centre, Report 32, 1992

In the year following the introduction of a Law requiring all cyclists to wear helmets (1990), reductions ranging from 37% to 51% were recorded in the number of cyclists killed or admitted with head injuries to hospitals in Victoria. There were also substantial reductions (21% to 24%) in the number of severely injured cyclists who did not have head injuries.

- (ii) **Do Bicycle Safety Helmets Reduce Severity of Head Injury in Real Crashes?**

Margaret Dorsch et al, Accident Analysis & Prevention Vol. 19, No 3 1987

Analysis of the data from this study showed a statistically significant association between helmet use and reduced severity of head injury. Similarly, it was estimated that the risk of death from head injury was considerably reduced for helmeted relative to un-helmeted bicyclists.

- (iii) **Effectiveness of bicycle helmets in preventing head injury in children: case-control study**

S Thomas et al, British Medical Journal Vol. 308, 15 January 1994

This study found that wearing a helmet reduced the risk of head injury by 63% and loss of consciousness by 86%.

- (iv) **Cycle Helmet Effectiveness in New Zealand**

Accident Analysis & Prevention Vol 31 No 6, 1999 L J Povey et al

The relatively large increase in helmet wearing (up to more than 90%) associated with the passing of a compulsory Law in 1994 reduced head injuries by between 24% and 32% in non-motor vehicle crashes, and by 20% in motor vehicle crashes.

- (v) **Bicycle Helmet Safety Institute**

<http://www.helmets.org/mandator.htm>

In the USA, the number of annual deaths among cyclists younger than 16 has declined by 84% since 1975; in contrast, the annual number of deaths among cyclists over the age of 16 has more than doubled in the same period.

There are approximately 73 million cyclists in the USA. A study by the Insurance Institute for Highway Safety found that in 2006, a total of 730 cyclists were killed in accidents. 95% of those killed were not wearing helmets.

(vi) **A case-control study of the effectiveness of bicycle safety helmets**

New England Journal of Medicine, May 1989 Thompson et al

This year-long study concluded that bicycle safety helmets are highly effective in preventing head injury. Helmets are particularly important for children, since they suffer the majority of serious head injuries from bicycling accidents.

(vii) **Bicycle Helmet Safety Institute**

<http://www.helmets.org/mandator.htm>

New York State reports that since it introduced its helmet Laws, the annual rate of cyclists hospitalised from bicycle-related brain injuries has fallen for the covered group from 464 in 1990 to 209 in 1995 – a reduction of 55%. The rate for cyclists not covered for the same years declined much less, from 454 to 382 (16%).

New Jersey reported in July of 1997 that after introducing a helmet Law for children under 14, the bicycle-related fatalities for that group fell by 60%, from 41 in 1987–1991 to 16 in 1992–1997. For riders aged 14 and over, the figures were 75 and 71 (5%).

(viii) **A Prospective Analysis of Injury Severity Among Helmeted and Nonhelmeted Bicyclists Involved in Collisions with Motor Vehicles**

Trauma Vol. 31, November 1991 Spaite et al

284 pedal cyclists were treated in an Emergency Room in the University Medical Centre, Tucson between 1986 and 1989. 116 (41%) were wearing a helmet at the time of the accident and 168 (59%) were not. Of the 168 non-helmeted cyclists, 37 received a major head injury while only one of the 116 helmeted cyclists did so.

The authors therefore concluded that helmeted cyclists were less likely to sustain severe injuries to the body as a whole than non-helmeted cyclists (possibly because cyclists who wear helmets are more careful riders).

(ix) **The effect of Bicycling helmets in Preventing Significant Bicycle-Related Injuries in Children**

Clinical Journal of Sport Medicine, University of Calgary, 1996

K A Finvers et al

699 cycling accidents involving children that occurred between 1st April 1991 and 30th September 1993 and in which the child received treatment at an Emergency Department were studied. 13.7% of the child casualties had been wearing a helmet at the time of the accident. Of the children who received serious head injuries, 94.7% were not wearing a helmet while only 5.3% of the children wearing a helmet suffered a serious head injury.

- (x) **State Level Estimates of the Incidence and Economic Burden of Head injuries stemming from Non-Universal Use of Bicycle Helmets**
Injury Prevention, Vol 8(1) 2002
J Schulman et al

The aim of this project was to develop national and state level estimates of preventable bicycle related head injuries, and associated direct and indirect health costs, from the failure to use bicycle helmets.

The study estimated that over 100,000 cycling head injuries could have been prevented in 1997 in the USA if all cyclists had been wearing helmets. These deaths and injuries cost an estimated \$81 million in direct and \$2.3 billion in indirect health costs.

- (xi) **Trends in Paediatric and Adult Bicycling Deaths Before and After Passage of a Bicycle Helmet Law**
Pediatrics – The Official Journal of the American Academy of Paediatrics
David E. Wesson, Derek Stephens, Kelvin Lam, Daria Parsons, Laura Spence and Patricia C. Parkin

This study examined bicycle-related mortality rates in Ontario, Canada, from 1991 to 2002 among cyclists aged from 1 to 15 years of age and 16 years of age through to adulthood. The aim was to determine the effect of legislation introduced in 1995 which made it compulsory for children under 18 to wear helmets while cycling.

The authors of the study concluded that the bicycle-related mortality rate in children one to 15 years of age has decreased significantly, while there has been no similar reduction for cyclists 16 years of age and over.

- (xii) **Impact of Mandatory Helmet Legislation on Bicycle-Related Head Injuries in Children: A Population-Based Study**
Pediatrics – The Official Journal of the American Academy of Paediatrics
Alison K. Macpherson, Teresa M. To, Colin Macarthur, Mary L. Chipman, James G. Wright and Patricia C. Parkin

The authors of this study found that the Canadian bicycle-related head injury rate declined 45% in provinces that adopted helmet Laws compared with 27% reduction in provinces and territories not adopting Laws.

- (xiii) **Effect of Legislation on the Use of Bicycle Helmets**
Canadian Medical Association Journal, Vol 166 (5), 2002
J C Leblanc et al

About 75% of the 50 Canadian children and adolescents who die each year from cycling injuries die from head injuries. This study measured helmet use before, during and after the introduction of mandatory cycle helmet use in Nova Scotia in 1997.

The rate of helmet use rose dramatically after legislation, from 36% in 1995 to 84% in 1999. The proportion of injured cyclists with head injuries in 1998/99 was half that in 1995/96.

(xiv) **Bicycle-related Head Injuries Plummet**

Medical Association Journal, Vol 13, 168(10), 2003

Natalie Dunleavy, Canadian

The Canadian Institute for Health Information reported a 12.5% decrease over a 5 year period in the number of hospitalisations due to bicycle-related injuries among Ontario children aged 5 to 19 years. During the same 5 year period, the number of bicycle-related head injuries in that age group dropped by 26%.

The report states that this was due to the 1995 introduction of Ontario's bicycle helmet legislation, which required children to wear a helmet while riding a bicycle.

Schedule of costs (real case)

*Source: Stewarts Law***Financial loss**

	Section Number	Past Loss	Future Loss
1.	Lost Earnings	£80,622.22	£540,966.74
2.	Care	£167,121.29	£4,628,879.40
3.	Accommodation	£207,558.32	£89,344.75*
4.	Aids and Equipment	£8,677.73	£445,189.12
5.	Travel and Transport	£31,226.10	£298,108.57
6.	Household Costs	£5,679.20	£92,474.00
7.	Holidays and Leisure	–	£43,620.00
8.	Clothing	£2,290.00	£10,905.00
9.	Medical and Therapy Costs	£8,537.23	£121,698.73
10.	Court of Protection Fees	TBA	£89,325.25
11.	Miscellaneous	£1,189.98	–
12.	TOTALS:	£514,492.07	£6,360,529.30

*excludes the contingency claim

The cost of paediatric acquired brain injury

Source: Irwin Mitchell

The cost of supporting acquired brain injury survivors in the community and in residential settings is difficult to assess, however, the typical make-up of a schedule of damages in a personal injury claim for a child with a brain injury sustained in a pedestrian/motor vehicle collision or cycle/motor vehicle collision may offer a starting point.

The following cases are based upon cases which are currently being worked on or have been recently settled by the writer of this note.

Case 1

J was a child injured in an accident at age 7. J's compensation claim is ongoing. Substantial interim payments have been obtained to cover the cost of educational and community support, case management⁴, increased accommodation costs and past care given gratuitously by his parents (i.e. care over and above that which would be needed by a non-injured comparator).

J has some physical disability – a left-sided hemi-paresis, but is independently mobile. He can be self-caring but needs regular and consistent prompting. It will not be possible for J to live independently in the community without support. He is unlikely to maintain any gainful employment. J lacks social maturity, behaves inappropriately in social settings and needs guidance and support in social/educational settings. At the age of 18 it is now possible to assess J's future needs because brain maturation is complete and he has reached full physical and emotional maturity⁵.

By the time we are ready to assess J's future care needs he will already have incurred substantial expenses which have been met from interim payments of damages. For present purposes it is probably not helpful to review the particularities of J's case over the 10 years or so from accident to independent living as an adult.

By far the greatest cost to J will be care/support and case management. Consideration of the cost of this support on an annual basis during various stages of J's development probably gives the best assessment of the annual cost of post-injury support.

Other substantial costs would include the purchase and adaptation of suitable accommodation, loss of earnings and costs of aids and equipment including assistive technology.

⁴ Brain injury case managers, usually from an OT or Social Work background, co-ordinate all aspects of a client's support including recruitment, training and management of support workers, health needs, housing and liaison with statutory services. Usually they are funded from damages claims and where there is a client who does not have the benefit of a damages claim this role would be assumed, to some extent, in theory by a social worker, but often it is more likely the responsibility would fall on family.

⁵ In child brain injury cases it is not always possible to settle claims while children are still very young. Sometimes expert advice will be to wait until full maturity (brain maturation and physical, sexual and emotional maturity are reached) before any final assessment is made.

Relatively modest figures are also likely to be incurred to cover therapies, transport costs and property maintenance.

J'S CARE AND SUPPORT COSTS

Between the ages of 7 to 16

J needed an average of 20 hours per week and 8 hours per weekend of support worker time⁶.

In urban areas support workers can, in theory be recruited for £11/12 per hour (£13/14/hour at weekends). Urban areas have larger workforces available to the care sector, often increased by migrant populations, which keeps hourly rates down to some extent. Often, however, these workers lack the skills needed to support people with acquired brain injury and higher rates have to be paid to attract and retain the right calibre of staff. It is not uncommon to weekday see rates of £13 per hour or more. If agency carers are used then £14/15/16 per hour would not be unusual.

Once paid, holiday cover is added on an agency basis. **The annual cost of this support package will exceed £20,000** even based on the lower of the above hourly rates.

In addition, during this period, the case manager will be offering support, including support with educational statements and liaison with school classroom staff. The case manager's hourly rate will be in the region of £85 per hour. J required around 140 hours per annum of **case manager time, the annual cost of which comes to £11,900.**

Once support worker and case manager expenses are added the **total package will be in the region of £35,000 per year.**

Age 16 to 21

From the age of 16 to 21 J will need 55 weekday hours and 16 weekend hours of support worker input. With holiday cover, insurance, advertising costs and sick-pay factored in **the annual cost of support is £42,500.**

Case manager costs during this period were **estimated at £15,500 per year.**

Adding these together the **total cost of support in this period will be in the region of £58,000 per year.**

From age 21 onwards

Living in own accommodation J will need 15 hours per day of waking care support and a sleep-in support worker for the remaining part of the day. Adding in the

⁶ Note: in addition to this care package J's parents will be giving additional unpaid support well beyond that which J would require if he had not sustained ABI, particularly as he gets older but does not become increasingly independent as would the non-injured child. This can be claimed on behalf of the parents at discounted hourly rates in the personal injury claim.

additional costs referred to above **the total annual cost will be in excess of £110,000 per annum.**

During the same period the **annual case management costs are estimated at about £15,000 per annum.**

The total ongoing **cost of support during this third stage will be in excess of £125,000 per year.**

These figures are fairly typical for moderate brain injury where there are significant but not severely disabling injuries which affect social interaction, motivation, perception of danger, planning and so on.

In cases of more severe disability annual care and support packages can run to 3 times this figure or, in some cases, more.

RECENT EXAMPLES OF CARE COSTS IN CASES OF MORE SEVERE BRAIN INJURY

Case 2

In the case of a young girl injured in her teens, with severe physical disabilities and needing 24 hour care, doubling up for parts of the day to deal with personal care and transfers, a large team was recruited to cover several shifts and sleeping and waking night care overseen by a team leader and managed by a case manager. In that case the **annual cost of care and support was assessed at in excess of £250,000.**

Case 3

In the case of a man with brain injury which left him with very moderate physical disability, but severe behavioural difficulties requiring high levels of supervision and support (flashpoints around personal care sometimes requiring 3 carers/support workers) the **cost of supporting him in the community was assessed at over £450,000 per year and in a specialist residential facility the cost would be in the region of £200,000 per year** with additional 1:1 input and case management being funded at a cost of a **further £30,000 – £50,000 per year.** In this case the client qualifies for Continuing Health Care funding from his home PCT as he satisfies the current CHC criteria, and at the moment his placement in a specialist brain injury residential unit is being funded by the PCT at a cost of just short of £200,000 per year with top-up 1:1 support and case management being provided via his personal injury claim.

It is further worth noting that in a case where there is no personal injury claim the injured child is likely to rely upon his or her social worker for some of the support which a brain injury case manager might otherwise provide.

THE COST OF ACQUIRED BRAIN INJURY

The cost of acquired brain injury in children is borne by the survivor, their family and the state. The briefest review of the facts of these cases illustrates that the cost in falls most heavily upon the survivor and their family in every sense.

In the cases given above (all claims against RTA insurers) the insurance industry will bear the brunt of the financial cost: Case 1 is valued overall at between £6 million and £6.5 million; Case 2 settled on the basis of a mediated settlement at a valuation of £7 million; Case 3 is potentially the highest of the three and the ultimate valuation depends on whether the client can live safely in the community or not.

There is, however, an economic cost to society to be considered also.

Even where there is a successful personal injury claim, the economy will have lost an individual who would in probability have worked and paid tax and in many cases, particularly where children are involved, one or both parents find themselves having to give up work.

In a case where no personal injury claim is involved the cost to the state can include –

- PCT or LA funding the cost of care – in some cases in excess of £200k per year or more⁷
- Loss of tax revenue from the disabled individual
- Payment of disability living allowance
- Loss of tax revenue from one or more parents – who may in addition be paid carers' allowances
- Increased healthcare costs on top of care
- Cost of involvement of social services/PCT staff in overseeing assessments of need
- Social work input
- Cost of special schooling or classroom assistant.

Summary

Hard data for the cost of caring for disabled children is not easy to assimilate. Some data is available for costs of care based on personal injury damages claims and challenges to social services and PCT assessments.

Care and support and the management of that provision makes up by far the greatest cost to the state in such cases. We can see, however, that substantial additional cost arises in each individual case based upon lost tax revenues, benefits and other healthcare and therapy provision.

In a case where a care package is being provided by the state, an annual cost of well in excess of £200,000.00 will often arise. Brain-injured children with good mobility and communication skills often have life expectancies not substantially reduced from normal and so 50 to 60 years of such support would not be unusual.

⁷ Based on cases where we have challenged social services care assessments we are aware of the fact that full care packages for severely disabled children carry an annual costs often well in excess of £200,000.00

Jersey Evening Post

14 June 2007



Neil Speed lost half his ear after going over the handlebars of his bike
Picture: DAVID FERGUSON

'Take it from me — wear a helmet'

A MAN who suffered serious injuries in a bicycle crash is holding himself up as an example of why helmets should always be worn.

Half of Neil Speed's left ear was ripped off when he hit the tarmac on Monday evening. He also broke

By Andy Sibcy

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both his cheek bones and has had to have a titanium plate fitted in his face.

The 37-year-old was riding back
(Cont on page 4)

Injured cyclist

(Cont from page 1)

to town from St Aubin on the cycle track at around 8.30 pm when he went over the handlebars. He said that he had to perform an emergency stop on an S-bend near Bel Royal slip because two people were cycling in the other direction two abreast.

Speaking from his hospital bed yesterday, he urged others to learn from his mistake.

'I wasn't wearing a helmet and had absolutely no intention of wearing a

helmet,' Neil said. 'I am a 37-year-old, relatively robust bloke and I would not wear a helmet because it is not fashionable, and with my surname being Speed ... I was wrong and I should have been wearing a helmet.'

'The irony is that my father-in-law tried to get me to wear a climbing-type helmet on Monday night and I refused.'

'My philosophy has changed somewhat now. I will be wearing a helmet from now on. I will still ride my bike, but I will be safer.'

Jersey Evening Post

11 June 2004



Narrow escape: Thomas Bailey's damaged helmet shows how close he came to serious injury. Picture: ROB CURRIE (00063092)

■ **ACCIDENT:** Cyclist gets off lightly after falling under tractor

Saved by his helmet

A CYCLE helmet almost certainly saved the life of 16-year-old Hautliou student Thomas Bailey when he hit a car and fell under a tractor trailer.

His shattered helmet is stark evidence that instead of nursing bruises, grazes and a little shock as he takes his GCSEs later this week he could have been in an intensive care bed.

Maybe too fast

Looking back on the accident, which happened on Tuesday, Thomas said that he was cycling — 'maybe a bit too fast' — along Trinity lanes when he came across a van in front which had stopped in the narrow lane to let a tractor drive by. 'I tried to brake, but it was too late and I fell towards the middle of the road,' he said.

Striking the van as he fell, he slid beneath the tractor trailer.

Thomas was taken to hospital but released after his painful shoulder and chest and cut elbow were examined.

BY DIANE SIMON

Praising the tractor driver for his support at the scene, Thomas said that he knew immediately the valuable part the helmet had played in saving him.

'As I emerged from under the trailer I held up my broken helmet and told them it had saved me,' he said.

Child accident prevention co-ordinator Louise Hamilton said that Thomas's experience had been a timely reminder of how vital it was that cyclists wore helmets. 'Thomas and his family all wear cycle helmets and should be praised for that approach. Children need to be encouraged from a very early age to associate the wearing of a helmet with the use of any form of wheeled transport,' she said.

In the UK, 75 per cent of all deaths following a cycle accident were from head injuries. 'Helmets have been shown to absorb much of the impact from an accident and reduce injury by up to 85 per cent,' she said.

APPENDIX 6

'The day I fractured my skull'

The morning of September 19th 1999 was warm and sunny. I had recently graduated with a BA in Design, and was enjoying the last days of my vacation, out on my racer bicycle. I was obsessed with cycling and had already cycled over 100 miles that week. Travelling along St. Ouen's Bay, I checked the surf at Le Port and decided to head back home to collect my surfing gear. My last memory is of reaching the first corner on La Route de la Marette, beside Les Mielles Golf Club. I was not wearing a cycle helmet and my speedometer indicated that I was travelling at 20mph.

I regained consciousness eight hours later, lying in a ward bed in hospital. My first sensation was one of extreme nausea and I proceeded to be violently sick. I then became aware of the most excruciating pain in my head. My parents and boyfriend were sat at the side of the bed but I could not focus on them. Every sound that I heard seemed to have been amplified a thousand times and caused extreme pain, as did bright light. I felt horribly disorientated and totally confused as to where I was.

Trying to recall what had happened, I had only dark, frightening images in my mind of being wheeled along St. Ouen's Bay on a porter's trolley. I had in fact been the victim of a hit and run incident. Two female golfers had found me lying semi conscious in the road and I had apparently directed them to my house, from where my parents had called an ambulance. On arrival at hospital, severely concussed, it had taken three attempts to x-ray my head; I was apparently extremely aggressive towards the doctors and when a policeman arrived to question me, I started taking my clothes off in front of him! To this day I have no recollection of those 8 lost hours.

I spent the next 8 days in hospital in incredible pain, deeply distressed and confused; I vaguely remember crawling out of bed one night to beg the nurse for more pain-killers. Even though I had sustained no more than a scratch on my right elbow, the X-rays confirmed that I had a large fracture down the back of my skull and it soon became apparent that the trauma had caused me to lose my senses of smell and taste. One evening we were allowed to stay up late on the ward to watch a firework display over the harbour but this caused immense distress to me; the explosions and bright lights of the display caused horrendous pain in my head.

Returning home, the full impact of the fracture began to take hold. Even the slightest noise caused intense additional pain; I remember cowering in the bathroom after dropping my toothbrush onto a glass shelf! Cooking and eating were a nightmare and that Christmas was very depressing; I couldn't smell anything I cooked, or taste anything I ate. The constant pain in my head was exhausting. Eight weeks after the accident I started a new job but, looking back, I wish I had waited longer to recover.

Over time, the pain gradually subsided. It took almost two years for my senses of smell and taste to return and, curiously, they did so in stages; everything would taste of chocolate one week, curry the next. It was a very bizarre experience. Cucumber and peach were the last to return to normal.

Without a doubt, the psychological impact of my skull fracture was the greatest shock. I suddenly became aware of my own mortality; how I could so easily have been killed. My personality changed overnight – I became highly emotional, selfish and depressed.

I finished with my boyfriend because I believed, in my confused state, that he didn't understand or care about what I'd been through, I behaved erratically and argued with everybody. Having previously been a relatively happy-go-lucky soul, I feared for my own safety even when walking down the street. I basically fell apart for the following two years. Nobody was ever caught for the hit and run and I had fantasies about being hypnotized to find out what had really happened in my lost hours.

To this day, I cannot totally enjoy any sports; cliff path walking, surfing and snow boarding still thrill me but I hold back; I am terrified of being injured again. My memory is not what it was; I have to write down every-day tasks and childhood memories often escape me. The injuries I sustained could have been so much worse and I feel great sorrow for the victims of families who have to deal with far greater, permanent damage caused by head injuries.

Had I, on the morning of 19th September 1989, taken half a minute to put on a cycle helmet, I doubt I would have ended my day in hospital with a fractured skull. I cannot find words to stress the physical pain and mental torment of suffering such an injury, for yourself and your loved ones. If you value your life, please, always, always wear a cycling helmet.

Carole Le Gresley May 2001



the brain injury association

Headway - the brain injury association A Case Study

'My Barbie bike changed my life'

Sinead King was just six-years-old when she fell off her bike while playing outside of her house. Despite there not being a mark on her, it soon became apparent that the seemingly innocuous bang to her head was far more sinister than it first appeared. Here is her story.

I was riding a Barbie bike when it happened, which shows just how young I was. Although I don't remember it, I've been told that I fell off and hit my head on the tarmac. I have four older sisters and we had all fallen off bikes and had many scrapes and bruises over the years. But this time, there wasn't a mark on me.

I was helped into the house and was crying. Mum was making the dinner so after she comforted me she told me to lie on the sofa until I felt better.

My sister came and lay with me and after a while she asked me what happened. I said 'nothing' – I couldn't remember. She went out and told Mum who in that split second decided to switch off the dinner and take me into casualty.

I was lucky as we live close to Daisy Hill Hospital, in Camlough, outside Newry. I was fully alert when we arrived but I soon began to fit and be sick. Shortly afterwards, I fell unconscious and was rushed to The Royal Hospital in Belfast. By the time Mum and Dad got there, the surgeons had started to operate.

They discovered I had fractured the bone just above my left ear, which led to a blood clot forming on my brain. My long curls were shaved off as the surgeons operated to save my life.

I was in intensive care in the neurology ward for a week after the operation, with a drain in my head to remove the excess blood. My family were told it would be a long road to recovery. It was similar to the after-effects of a stroke and I had severe weakness down the whole left-hand side of my body for the next couple of years.

Twelve years on I am still receiving physiotherapy. I spent the entire summer of 2008 in plaster and in a wheelchair following an operation to lengthen my Achilles tendons, which had seized as a result of my left-sided weakness.

We all think it will never happen to us; I would never have thought that a tiny bicycle could have such a significant impact on my life.

Young people may think it is uncool to wear a helmet but



there's nothing cool about having no hair and a horse shoe-shaped scar where there were 36 staples in your head. I was unable to walk, talk or do simple things like go to the bathroom on my own.

My family spent countless hours agonising over my condition and how it would continue to affect me for so many years to come.

I don't want other people to go through this, which is why I am so passionate about the work Headway does.