

STATES OF JERSEY



COMPULSORY WEARING OF CYCLE HELMETS (P.4/2010): AMENDMENT (P.4/2010 Amd.) – ADDENDUM

Presented to the States on 8th March 2010
by the Deputy of St. Mary

STATES GREFFE

ADDENDUM TO REPORT ON P.4/2010 AMENDMENT

Introduction

1. This proposal springs from the personal experience of one member, Deputy Green. I have every sympathy with him in the face of what happened, and I am sure the proposal is well-intentioned. But there are very real doubts about whether this intervention does not miss the point, whether it would be effective and whether it would not do more harm than good.
2. These words from a National Children's Bureau report could almost have been written with this debate in mind (see¹ page 47) –

“The cycle helmet debate shows the dramatic power of real life events in shaping our understanding of causality. Tragedies happen; child cyclists are killed or left disabled for life; and we cannot let go of the belief that something could and should have been done to stop that particular event from happening – especially when that something is so simple as wearing a helmet. We find it hard to accept that the helmet may have made no difference. We find it harder to accept that encouraging or forcing children to wear helmets might also encourage them to ride in a more dangerous way and paradoxically to increase the risk that they will suffer an accident. And we find it much harder to accept that compulsory helmet use might put children off cycling altogether, leaving them less physically active, and – many years later – more likely to die of heart disease. Think of all the uncertainty behind that line of argument, compared with the seeming rock-solid conviction that a helmet could have saved that particular child's life, at that particular time. And of course the fact that we are talking about children, who have a claim on our protection and who are still getting to grips with the world, makes it so much more difficult to accept the limitations on our ability to prevent them coming to harm. We cannot ignore the human suffering, pain and loss that lie behind the research and statistics. But our response to it demands reflection and perspective as well as sympathy and conviction.”
3. So it does sound plausible: put helmets on cyclists and then some dreadful injuries, with their associated pain, grief and cost will be avoided. But the Report accompanying P.4 avoids any mention at all of any evidence of any kind which might “confuse” the minds of members, and cast doubt on the wisdom of the proposal. Whereas, in fact Deputy Green's claims about expert opinion, other legislatures and the scientific evidence have to be taken with a pinch of salt. (see paragraphs 71 – 112below)
4. The proposal can be looked at in a different way. It is dangerous to the public health of our community. It proceeds by putting a small piece of protection on the head of cyclists instead of making our roads safer and thus singularly fails to address the real problem. It is arbitrary – cyclists are no more at risk than other groups, and cycling is a safe and normal activity, just like walking. The unintended consequences are extremely costly to individuals and to society and will damage many States goals and policies.
5. Those statements, if they can be evidenced, would be enough on their own to suggest that it would be wise to pause and take stock before plunging into

legislation which might be ill-judged. But there is a further consideration, and that is that a much better alternative exists which reconciles health and safety.

6. There is a better way: towns, cities and whole countries have increased cycling with all the benefits this brings and reduced injury rates at the same time. That is the alternative which is completely absent from Deputy Green's report.
7. I am asking for a review so that the many far-reaching implications and unintended consequences of this proposal can be teased out with reference to Jersey, in the context of the very real need to increase road safety. This is the responsible thing to do when legislating, and it is what we would do for any other law such as this.
8. Members might well ask – has the proposer accepted this amendment? After all, it is a logical step, to consider the pros and cons before taking the plunge. Curiously, he has refused. Perhaps the case is not as strong as he would have us believe?
9. May I refer members to my Appendix 1, a peer review of Deputy Green's P.4 Report. Malcolm Wardlaw has written extensively about cycle helmets in journals such as the British Medical Journal (BMJ). He is also a founder member of the British Helmet Research Foundation (BHRF) and a main contributor to their website www.cyclehelmets.org.
10. Members are fortunate to have the benefit of Mr. Wardlaw's considerable expertise and I am very grateful to him for taking the time to provide members with this critique. His biographical details can be found in the last paragraph of Appendix 1 just before the references. For his bibliography see Appendix 2.
11. Mr. Wardlaw's peer review fills in the gaps in the report accompanying P.4 by detailing "important evidence not presented in the proposal" and provides a critique of the evidence which is presented.

Summary

12. **The claims in the proposer's Report, in particular his claims about expert opinion, other legislatures and the scientific evidence for the effectiveness of helmets are deceptive and weak. If helmet compulsion is enacted, on the basis of what has happened elsewhere when helmet laws have been enacted, we will probably lose 20-40% of cyclists. This drop in cycling will have a major harmful effect on public health at a time when inactivity and its consequences are a big, if not the biggest headache for our health promotion team. This drop in cycling will also have a major harmful effect on many States policies and plans. The costs of this proposal are likely to far exceed the benefits. There is Safety-in-Numbers – the more cyclists (or pedestrians) there are, the safer they are. So encouraging more cycling reduces the risk per cyclist. However it is possible to go one better, as has been done in many places elsewhere: – to achieve more cyclists and reduced casualties. In the light of these considerations, I am asking that we take a careful look at this proposal before legislating.**

Outline

13.
 - a) The context – is cycling more dangerous than other activities?
 - b) The context – Safety-in-Numbers
 - c) The context – the benefits of cycling, to each States department
 - d) The context – helmet compulsion will lead to fewer cyclists
 - e) Weighing up the pros and cons
 - f) A better way forward – **to achieve more cyclists and greater safety**
 - g) P.4 Report – expert opinion
 - h) P.4 Report – what other legislatures are doing
 - i) P.4 Report – the scientific evidence for helmet effectiveness
 - j) Conclusion

a) *The context – is cycling more dangerous than other activities?*

14. **The short answer is no, it is not. This raises the question then – is the proposal not arbitrary in singling out cycling for attention? Is it fit for purpose?**
15. “Reading through the proposal, one might gain the impression that children only suffer head injuries in cycling accidents, since no other cause is mentioned. The range of evidence shows that cycling is actually very much a lesser cause of head injury, and walking/falls the leading cause.”¹ (For a fuller explanation of the causes of child head injuries, see Appendix 1 section 2i).
16. Concerning all ages, “Of at least 3.5 million regular cyclists in Britain, only about 10 a year are killed in rider only accidents. This compares with about 350 people younger than 75 killed each year falling down steps or tripping.”²
17. “A recent study in Glasgow estimated that 150 000 people are admitted to hospital annually with head injuries in the United Kingdom; road cyclists account for only 1% of this total, ... 60% of admissions were alcohol related.”
18. The question arising from this for the purposes of this debate is this: if 1500 out of 150,000 admitted to hospital in the UK with head injuries were people cycling on roads, what were the other 148,500 people doing at the time of receiving their head injury? Some, no doubt, were cycling off-road, but not all! Mr. Wardlaw is wittier – he asks: “Do we need revelling helmets?”³
19. “Two studies (BMA 1999 and Hillman 1993) also indicate that more significant casualty reductions could be gained by helmet use among pedestrians and vehicle occupants than among cyclists.”⁴

¹ (Appendix 1, section 2i. This quote is the last paragraph)

² National Statistics Office data for 1997 cited in Malcolm Wardlaw; “Three lessons for a better cycling future” in BMJ Volume 321, 23-30 December 2000 p1582

³ Thornhill S. et al, BMJ 2000, cited in Wardlaw, “Three Lessons for a better cycling future” BMJ, Vol 321, 23-30 December 2000, page 1583.

⁴ From roadpeace website: <http://www.roadpeace.org/index.asp?PageID=150>

b) The context – Safety-in-Numbers

20. **More cyclists means safer cycling.** “A motorist is less likely to collide with a person walking and bicycling if more people walk or bicycle.... This pattern is consistent across communities of varying size, from specific intersections to cities and countries, and across time periods.” (See ii - abstract).
21. Jacobsen reviewed existing research before embarking on his own research. “Research at specific sites has shown that collisions between a motorist and a person walking or bicycling diminish where more people walk and bicycle. Ekman examined numbers of pedestrians, bicyclists, and motorists, and serious conflicts among them at 95 intersections in Malmö, Sweden. He found that after adjusting for the number of bicyclists, the number of conflicts/bicyclist was twice as great at locations with few bicyclists compared with locations with more. In fact, the number of conflicts/bicyclist decreased abruptly with more than 50 bicyclists/hour.” (See ii)
22. You can see Safety-in-Numbers operating all the time with respect to pedestrians in St. Helier, at the Conway Street turning into Broad Street. The redesign of the area has made pedestrians feel more confident, they feel it is more “their” space. There is an intermittent but heavy flow of pedestrians in both directions to and from Lloyds bank and the Post office and all points in between. As a result motorists come round the corner at walking pace.
23. Jacobsen studied walking and bicycling in 68 California cities; Walking, bicycling, and moped riding in 47 Danish towns; Bicycling in European countries; Walking and bicycling in European countries; Bicycling in the United Kingdom, 1950–99; Bicycling in the Netherlands, 1980–98;
24. The results are startling. For detailed discussion I refer members to the paper (See ii)

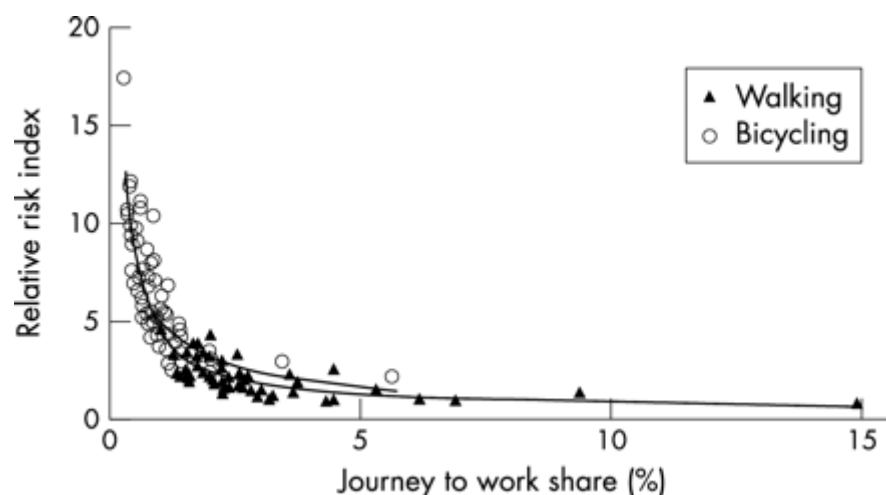


Figure 1
Walking and bicycling in 68 California cities in 2000.

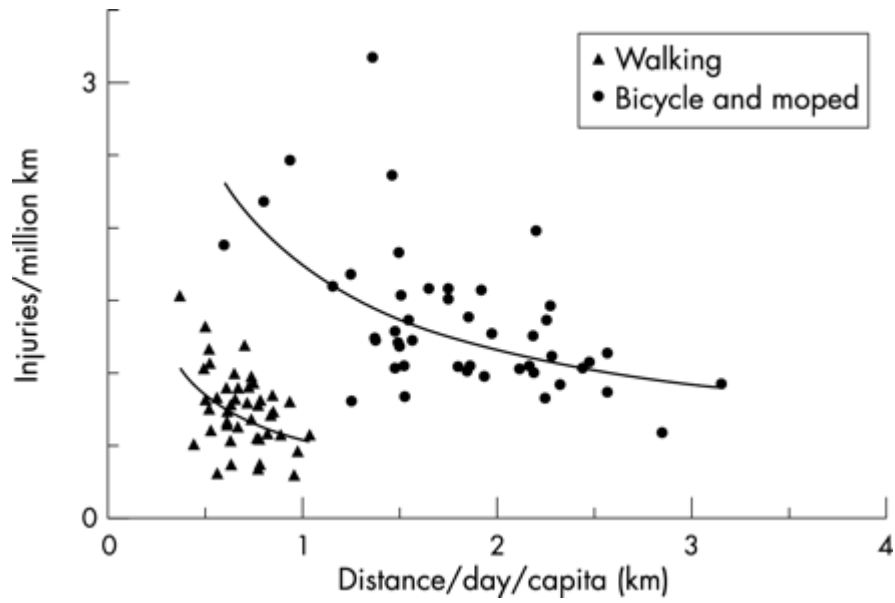


Figure 2
Walking and bicycling in 47 Danish towns in 1993–96.

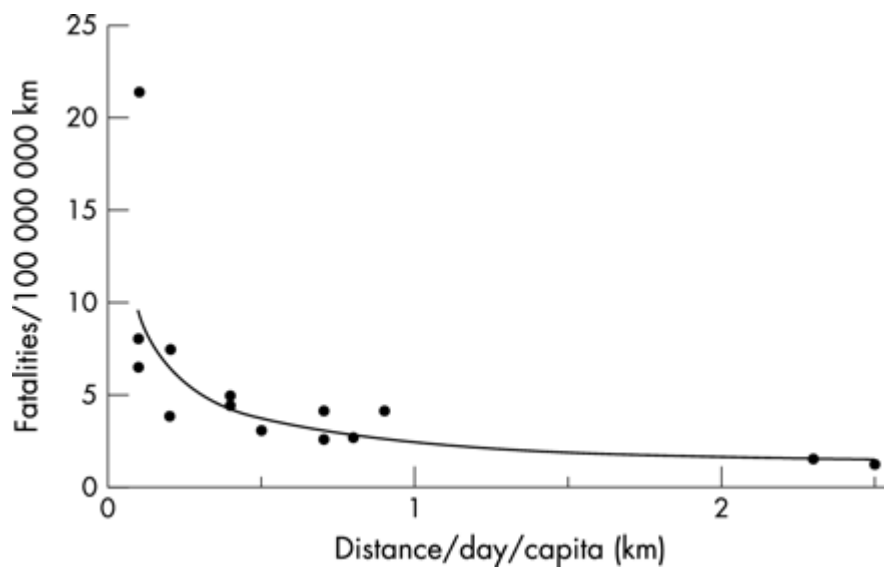


Figure 3
Bicycling in 14 European countries in 1998.

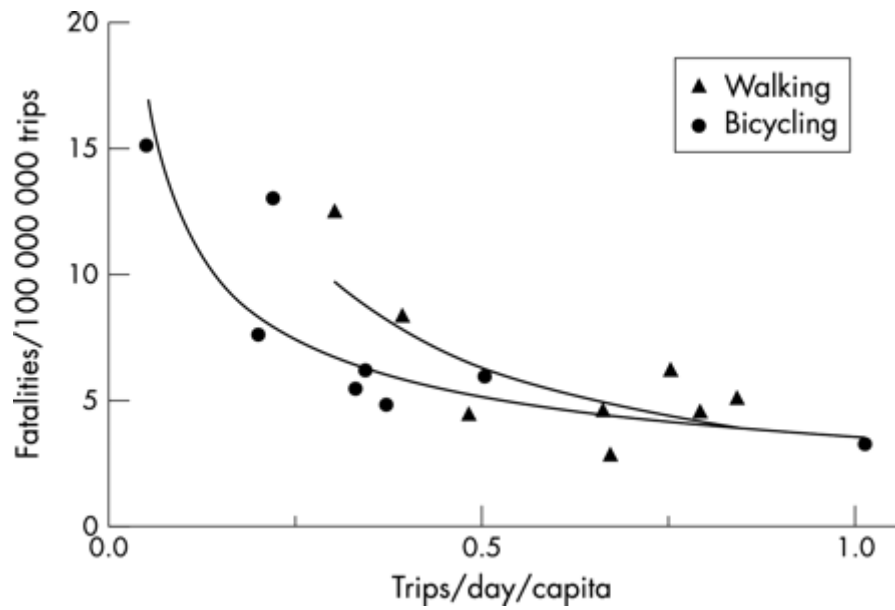


Figure 4
Walking and bicycling in eight European countries in 1998.

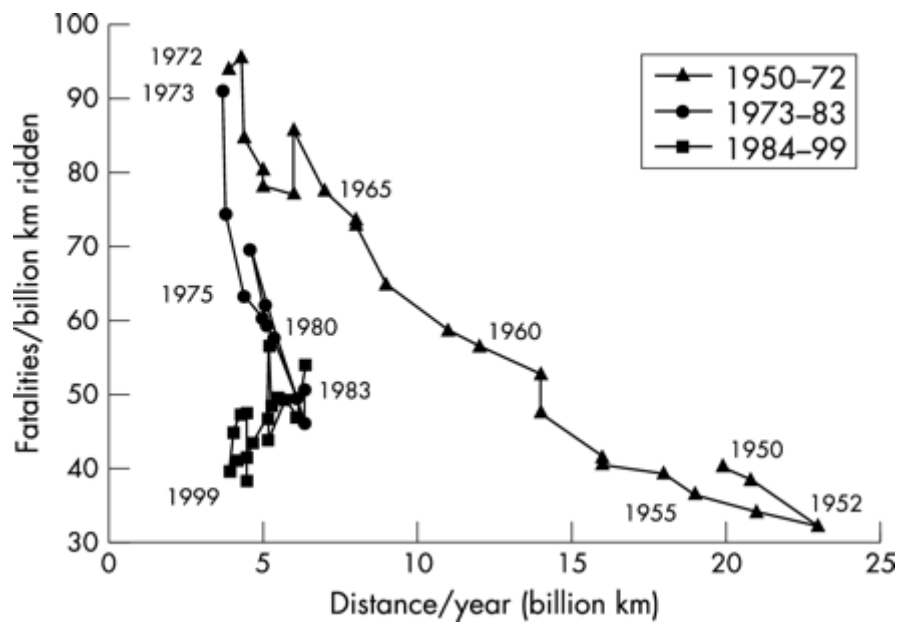


Figure 5
Bicycling in the United Kingdom from 1950-99.

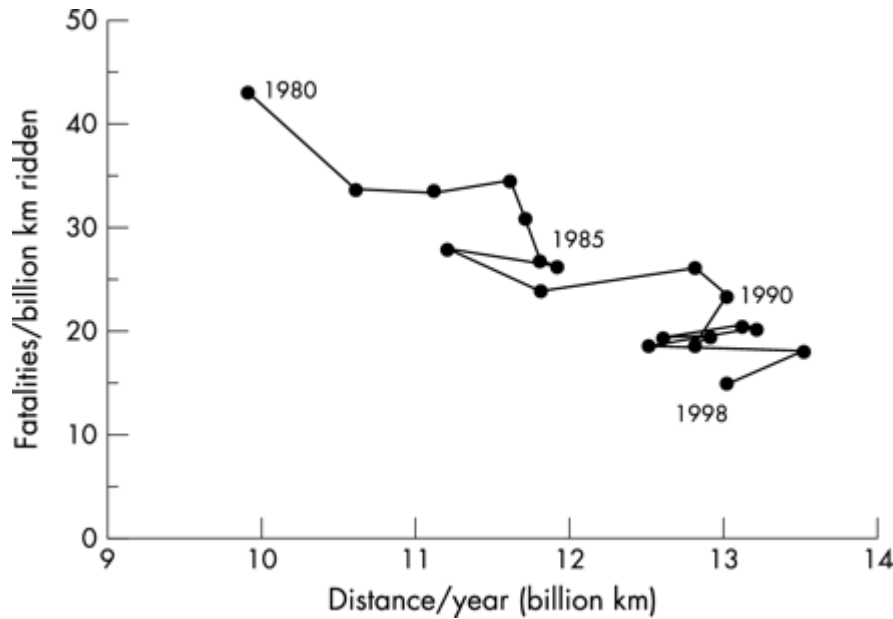
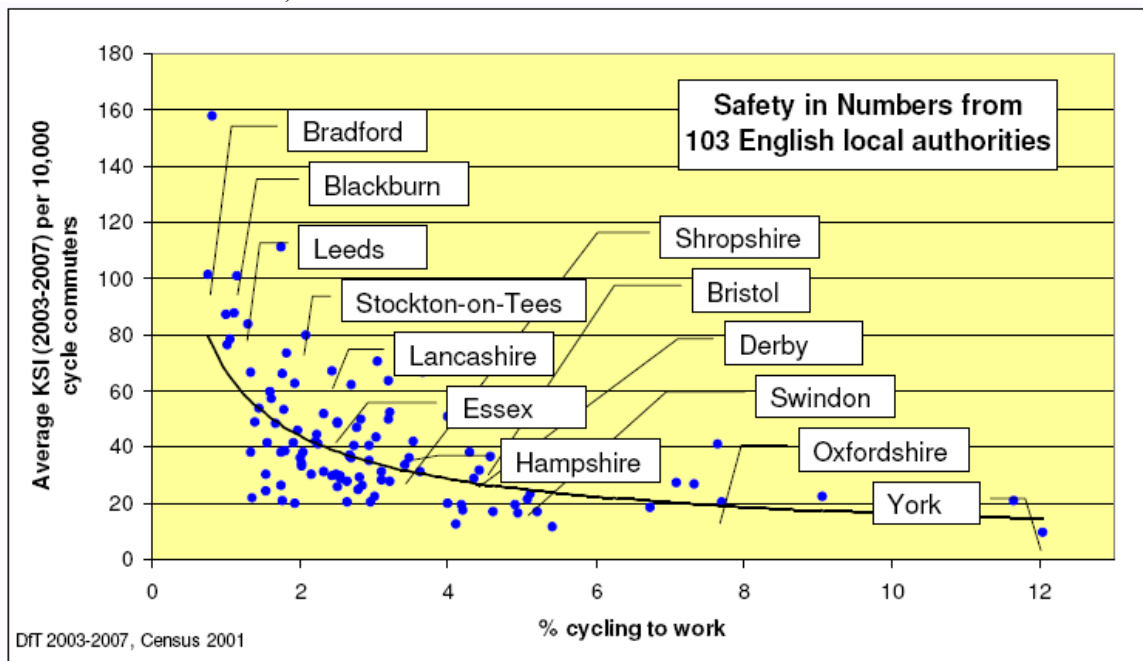


Figure 6
Bicycling in the Netherlands from 1980–98.

25. I have reprinted all the graphs because this finding is so important and so well-researched. The Safety-in-Numbers hypothesis is borne out by more recent (2009) CTC (Cyclist Touring Club) research into local authorities in the UK as shown below (from ⁱⁱⁱ CTC PowerPoint presentation on the “Safety – in – Numbers” effect)



26. More cyclists means safer cycling. And conversely, fewer cyclists or pedestrians means that the risk for each pedestrian or cyclist increases.

c) The context – the benefits of cycling, to each States department

27. **Every area of island life (and many areas of States expenditure) benefits from more cycling.**

Health and the Ageing Society

28. “The benefits of physical activity include a reduced risk of premature death from all causes.” (see^{iv}, first paragraph). The foreword of a 2006 WHO (World Health Organisation) Report writes –

“It is well documented and widely accepted that physical activity is a major health resource for people of all ages. Currently, the central role of a physically active lifestyle in preventing and reducing overweight and obesity is in the focus of public interest. But there is much more: physical activity has favourable effects on a wide range of noncommunicable diseases such as cardiovascular diseases, type II diabetes, osteoporosis, colon and breast cancer, or depression. And active individuals enjoy a more independent old age. The largest health gains can be obtained for those who overcome their sedentary lifestyles and become regularly active at moderate intensity levels.” (See^v)

29. There are clear implications for Jersey. In “Our Island, Our Health 2008” the Medical Officer of Health writes: “If unhealthy lifestyles are left unchecked and uninfluenced, the next cohort of pensioners, currently in middle age, **will create unsustainable pressure** on health services as sicker and more demanding consumers” (my emphasis).
30. This is a wake-up call to us as government to do all we can to promote more active lifestyles. As the CTC Healthdigest Report points out (see iv) cycling is a very accessible form of exercise. It is aerobic, low weight bearing, requires no special skills and can be fitted in to the daily routine easily.
31. And finally in this section, a word on obesity from the 2004 House of Commons Health Select Committee Report on that subject –

“If the government were to achieve its target of trebling cycle use in the period 2000-2010, that might achieve more in the fight against obesity than any other individual measure”⁵.

Planning and Environment

32. *Land use:* Cyclists already save the island roughly 675 car parking spaces in St. Helier alone.⁶ This is a huge saving of the island’s most precious resource (apart from its people) – its land.
33. *Air Quality:* The more bicycles replace motor vehicles on our streets, the less air pollution. Air pollution has been estimated to cause 12,000-24,000 early

⁵ www.publications.parliament.uk/pa/cm200304/cmselect/cmhealth/23/23.pdf

⁶ 7.5% of commuters commute by bike (JASS 2008 and 2009); 12000 people commute into St. Helier in the morning rush hour, in 9000 vehicles (TTS); vehicle occupancy is therefore 1½ persons per vehicle. Number of cyclists commuting into St. Helier is 7.5% x 12000 = 900. Number of vehicles saved is 900 ÷ 1½ = 675

deaths in the UK each year⁷. If cycling doubled from its present 7 to 8% of trips to work, and assuming that all other cycling increased in parallel, then the benefits would be very large. For a calculation of the financial benefit to Jersey in 1997 see footnote⁸.

34. *Urban Quality of Life:* a bicycle very very rarely kills or seriously injures, motor vehicles can and do do both. The more bicycles replace motor vehicles on our streets, the less danger and therefore the less stress and anxiety in our urban areas. Promoting cycling will contribute to the regeneration of St. Helier by creating cleaner air, less stressful and noisy streets, a better environment all round.
35. This in turn will lead to less pressure on the countryside - as St. Helier's desirability as a place to live increases.
36. Promoting cycling helps us to reduce carbon emissions and reduce our dependence on fossil fuels, in line with the energy policy.

Transport and Technical Services

37. **TTS have said that the sustainable transport policy needs to address congestion, local air pollution, noise, carbon emissions, reduced physical activity, access for everyone, safety, transport for business, oil vulnerability. For the full statement of these issues and what needs to be done to tackle them, see Appendix 4. Cycling has a clear role to play in all of these issues.**
38. The Minister in his foreword to the Consultation document says: "We must minimise the environmental impact of our travel and encourage Islanders to make convenient, sustainable and healthy travel choices. A high quality environment, clean air and safe roads are key factors in maintaining a good quality of life in Jersey. I am developing the Sustainable Transport Policy (STP) to work towards this objective."
39. The Minister continues: "In Jersey, we have a high car dependency often driving very short journeys. This causes air and noise pollution and contributes significantly to Jersey's global carbon emissions. The resultant congestion is detrimental to the Island's economy and also adversely affects the actual and perceived safety of our roads. By comparison, bus use and levels of cycling are low and we are much less likely to travel to work or school by bus, foot or bike. As a consequence, our increasingly sedentary lifestyles, of which travel is a significant part, has contributed to a less fit and

⁷ Committee on the Medical Effects of Air Pollutants. *Quantification of the Medical Effects of Air Pollution in the United Kingdom*, 1998

⁸ 13. AIR POLLUTION

13.1 Estimates of the costs of air pollution vary from 0.5% of GDP to 2% of GDP (see discussion in "Costing the Benefits: The Value of Cycling" by Mark Shayler, Malcolm Fergusson and Andy Rowell of Earth Resources Research, published CTC (Cyclists Touring Club), 1993) para. 4.4.4). Taking the lowest figure and applying it to Jersey's 1994 GDP figure of £1,435,000,000 the total cost of traffic air pollution to Jersey is £7.175m annually. On the assumption that air pollution is proportional to traffic levels a 10% switch from car to cycle would give an annual saving of £0.72m.

healthy society. **In short, the way we travel is not sustainable.**" (see ^{vi} page 3)

40. TTS set out the target of a 15% reduction in traffic for the island in their Consultation Paper. They are looking for an increase of 250 cyclists daily into St. Helier in the morning peak to help to achieve this proposed target.
41. They should be able to achieve this. In the 1300 or so responses to their questionnaire 39% said, in response to the question: "would you consider any of these alternative modes of travel"? that they would consider cycling. And in answer to the following question: I would consider using at least one of the above modes of travel – "less than once a week" or "once a week" or "daily" or "never" 67.5% said "daily".

Economic Development

42. **Promoting cycling helps Tourism achieve genuinely green credentials - so important now, particularly in Continental markets, but also increasingly in the UK market also. Traffic, particularly in St. Helier, is the single biggest source of complaint by visitors. As we promote cycling for residents and make it safer, so visitors will also benefit from an improved experience as they explore the island by bike, and so have better stories to tell their friends when they return home.**
43. This is a growing market. The number of people in the UK taking cycling holidays rose to 450,000 in 2006, a 30% increase from 2005. (source – Mintel, reported by the BBC).
44. And, an important fact in view of the increase in the 4 and 5 star bed stock in Jersey: the richest fifth of the population cycles on average 2½ times as far in a year as the poorest fifth. (*source – National Travel Survey – Department of Transport.*)
45. In addition, helmet compulsion is so alien to our visitors from the Netherlands and Germany that there is a risk of losing the more active segments of their business. Around 20% of the Dutch and 9% (from memory) of the Germans use bikes as their main means of transport when on holiday. A small matter maybe but every visitor is vital in order to maintain the air links without which there would be no visitors at all from those markets.

Education, Sport and Culture

46. **ESC has goals of "providing widespread participation in lifelong learning, sport, leisure and cultural activities." and "promoting the benefits of a healthy and active lifestyle". Promoting cycling helps to achieve these goals, and no special facilities or staffing are required.**
47. Promoting cycling helps to produce independent, healthy and fit school-leavers who have acquired the "exercise habit". Children like cycling, and so it is a ready-made path to these goals. Why cycling is so attractive to young people is spelt out in the National Children's Bureau report and a glance at

these attractions shows just how much benefit would be gained by our society if cycling became the norm amongst our children. (See footnote ⁹)

48. We should indeed ask ourselves why just 200 children in Jersey cycle to school. There is one school in Guernsey which alone has more children cycling to school than this. See paragraph 68 for some discussion of why Jersey cycling rates may be so low.
49. The Ministerial team at ESC should be concerned. As the NCB report says (i) page 25) –

“The drop in child cycling rates has probably already had an impact on children’s physical health and levels of child obesity. It may also have led to impoverished and more restricted childhoods. Assuming a link between cycling in childhood and adulthood, and between cycling by parents and by their children, this may mean that as today’s children grow up they will not only avoid cycling in adulthood, they will also be unlikely to encourage any children of their own to cycle.”

d) *The context – helmet compulsion will lead to fewer cyclists*

50. **This fact is absolutely key – the available data shows that helmet compulsion causes a drop in the number of people who cycle. Therefore ALL the benefits in all areas of States policies, as outlined in the previous section, are at risk. We will lose everything from the independence of our children to our air quality, from the gains in car parking spaces and reduced congestion to the gains in public health.**
51. The best data comes from Australia where state after state introduced helmet laws and then enforced them leading to dramatic increases in helmet wearing in a short space of time and equally dramatic losses of cycling.
52. In Melbourne, there were 42% fewer child cyclists and 29% fewer adult cyclists after legislation. In New South Wales cycling declined by 36% in year 1 and 44% in year 2 after legislation. (see ^{vii})
53. Surveys in Australia have found the helmet law is the largest reason cited for not cycling more ¹⁰

⁹ “Cycling has four main attractions for children. First, it is great fun. Its combination of difficulty, self-directedness and speed give it strong appeal. Second, it has the potential to dramatically expand the territory over which children can get around. Trips too far, tiring or boring to complete on foot become straightforward, quick and fun by cycle. Third, cycling is usually a social activity, allowing children and young people to meet their friends, to travel around with them and to share the enjoyment of their activity. Fourth, cycling, like walking, allows for close engagement and interaction with the people, places and objects encountered en route – much more so than travelling by car. Cyclists are more exposed to, and generally more aware of, the world around them, and this openness to new, unexpected experiences and encounters appeals to children’s curiosity and appetite for novelty and social contact. Market research on young cyclists in London confirms its attractions (ACT2 2004).” (Reference (i), page 9

¹⁰ [44] Heathcote B, Maisey G. Bicycle use and attitudes to the helmet wearing law. Traffic Board of Western Australia, May 1994.

[45] Blacktown City Council. Blacktown Study, Final Report. Sydney, both articles cited in Commentary on “**Promoting safe cycling and helmet use**” by Curran ALM
A briefing for the Board of Science, British Medical Association, March 2008. Web reference:
<http://www.cyclehelmets.org/1188.html>

54. “Cyclists often consider helmets hot, uncomfortable, and inconvenient. The equivalent of 64% of adult cyclists in Western Australia said they would ride more except for the helmet law.^{w9} In New South Wales, 51% of schoolchildren owning bikes, who hadn’t cycled in the past week, cited helmet restrictions, substantially more than the numbers citing other reasons, including safety (18%) and parents (20%).^{w12}” (Robinson, section headed “Analysis of cycling patterns” see (vii))

55. For more examples and discussion of this aspect, see Appendix 1 section 2 vi.

e) Weighing up the pros and cons

56. So it appears that we as legislators have to weigh up the acknowledged and obvious benefits of encouraging more people to cycle against the risk which may be involved in people refusing to wear helmets as seen in the above paragraphs.

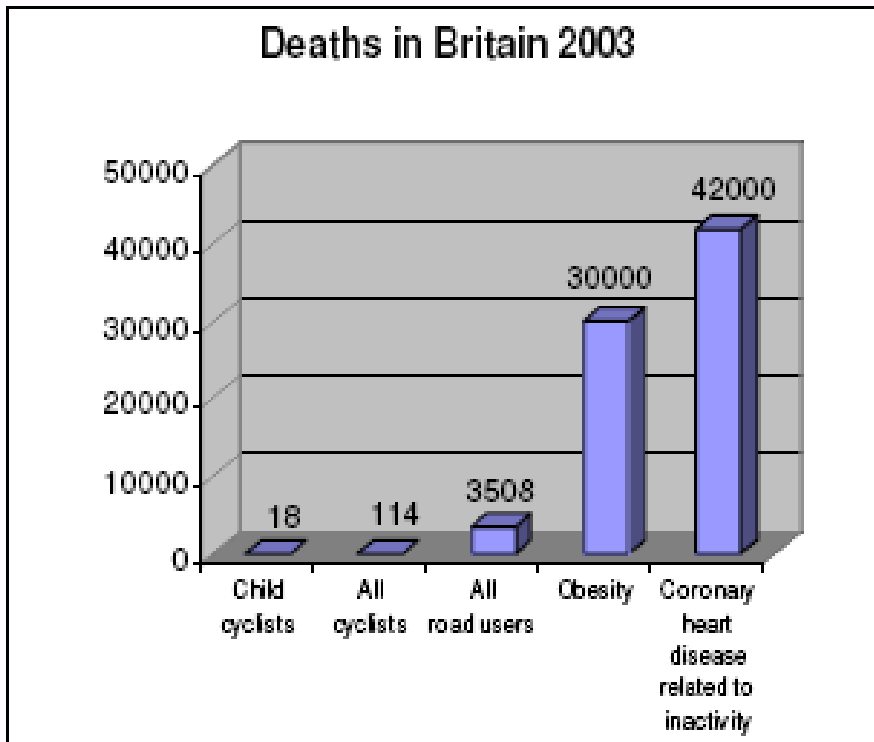
57. Three observations: firstly, even if one accepts the claims of those who believe in the effectiveness of helmets in saving injury, the gains in public health are greater.

58. Considerable research has been done into the health benefits from increased cycling rates. The Copenhagen study cited in Reference iv studied over 40,000 commuters. The study found that, compared with those who cycled regularly to work, people who did not do so had a 39% higher mortality rate, **regardless of whether or not they cycled or took part in other physical activities at other times**^{viii}. (my emphasis)

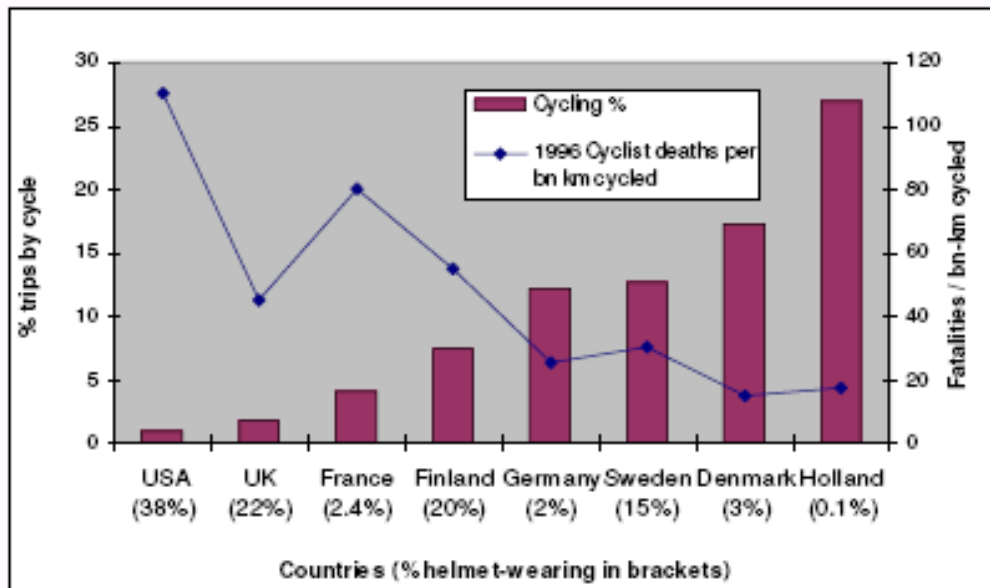
59. Regular cyclists typically enjoy a level of fitness equivalent to someone 10 years younger^{ix}, and those cycling regularly beyond their mid-thirties could add two years to their life expectancy^x (the latter finding is also borne out by an unpublished analysis of CTC members’ obituaries).

60. Another UK study found that people who took up cycling as a new activity gained the greatest benefits at the outset, but fitness continued to improve as they increased their cycle use. Reduced body fat was also noted, particularly among those who were overweight or obese at the outset of the trial^{xi}.

61. All these examples are from Reference (iv). It is abundantly clear that cycling saves lives and helps to make people fitter and younger than they would otherwise be. The charts below put the issues into context by showing how cyclist deaths compare to just one cause of death linked to inactivity. There are of course others.



62. Secondly, the protective effects of helmets are contested, for various reasons, which I describe below in the section headed “P.4 Report – the scientific evidence for helmet effectiveness”.
63. The chart below highlights how this debate cannot be seen in terms of black and white. Note in particular the helmet rates of the different countries and how those rates relate to the numbers of fatalities.



64. And thirdly, and best of all, we can take on board the experience elsewhere which shows that we can have both health and safety.

f) A better way forward – to achieve more cyclists and greater safety

Experience in other places

65. Towns, cities and countries have all achieved the double success of higher numbers of cyclists and at the same time greater safety for cyclists.

York: between 1991-3 and 1996-8, the modal share for cycling increased from 15% to 18%, yet the number of serious or fatal collisions fell from 38 to 15.

Leicester has increased cycle use by 43% in four years, along with an 11% reduction in cycle casualties. (Source: communication with Leicester City Council officer, it will probably be in Leicester's next Local Transport Plan)

Copenhagen: 1995-2006, - Cycle use up 44%, mode share for cycle commuting up from 31% to 36%, cyclist casualties down 60%

London: from 2000 to present: cycle use up 107%, serious and fatal injuries down 21%.

The Netherlands: from 1980-2005: – 45% more cycling, 58% fewer cycle fatalities

Germany: from 1975-98: – Share of cycling up from 8 to 12%, 66% fewer cycle fatalities¹¹

Can we reproduce this experience here in Jersey?

66. It has been done elsewhere. There is nothing to stop us doing the same. In fact Jersey has several advantages in promoting cycling to more people. We have a dense network of country lanes many of which carry very little traffic. We are compact. Most journeys are short. The Corbiere to St. Helier route along with other signed routes of the Jersey Cycle Network give us a flying start in cycle promotion. We have got used already to a relatively low all-island speed limit.

A quick guide to how to get there

- 67.
- First - promote and encourage cycling, as more cyclists means more safety for cyclists as well as all the other benefits.
 - Second – create a safe environment for cycling. This would benefit all other road users as well, particularly pedestrians: Tackle speed – 90% fewer Killed and Seriously Injured in Hull's 20mph zones, 56% decrease in collisions from 1994 – 2001 (source: from CTC presentation on the "Safety – in – Numbers" effect). And tackle drink-driving.

¹¹ Copenhagen, London, Netherlands, Germany figures from CTC presentation on the "Safety – in – Numbers" effect)

- Good quality cycle training for children, teenagers and adults.
- Route awareness campaigns: the best cycling routes are unknown to most islanders, and yet good routes was top of the list of encouragements in JASS 2009.
- Positive PR about the health and other benefits.
- Bicycle user groups to encourage cycling in the workplace.
- Rolling programme to improve cycling facilities, in particular, to reduce cycle/vehicle conflict.

68. Cycle helmets take their place within such a whole-hearted strategy. But intense cycle promotion, or compulsion would derail it, for the obvious reason that it engenders fear, and portrays cycling as exceptionally dangerous and therefore to be avoided.. Sustrans, who run their Safe Routes to Schools programme across the UK, have excellent guidelines which show how it should be done. (see Appendix 5) If we want to have more children than the 200 at present riding to school we must raise our game.
69. An additional benefit of increasing cycling that it reduces motor traffic, the main source of death and injury on the roads. Compared with motorised traffic, cyclists impose very little danger on other road users. Typically about 1 to 3 third parties are killed in the UK in fatal crashes involving a cycle per year, compared with around 1,600 third party fatalities involving cars. Legislation would reduce the number of cyclists and increase the number of cars and thus increase the risk to others.
70. The key is to focus on the important tasks first: to create a safe environment for cyclists and pedestrians, and second to encourage and help and support people to make the switch. The target must be to reduce all road injury accidents from their present level of 400 per year with a firm and effective policy – to what? Why not aim to halve it in a set period? And then we can aim to do the same again.

g) *P.4 Report – expert opinion*

71. This area is important in a debate such as this. I will first look at the BMA and the WHO quotations as these are large organisations whose views carry some weight. That is why Deputy Green cites them, unfortunately, in a rather misleading way. Then I will look at the more personal quotations. Then I will add the “expert opinion” which he omitted to mention.
72. In summary, the strange thing is how these medical personnel or organisations focus on the relatively safe activity of cycling, by wishing to impose protection on them. And yet there is no consideration of other ways of improving road safety and of reducing accidents and injuries. Why is this emotional energy not applied to calling for other effective safety measures which would benefit all road users and create a safer and more pleasant environment?

The aspect of whether in fact helmets do offer protection, to the individual or at population level is dealt with below in the section headed “P.4 Report – the scientific evidence for helmet effectiveness”.

The BMA (British Medical Association)

73. Deputy Green leads off by citing the BMA's current position, without qualification, as follows –
- “The BMA, as a part of its policy to improve safe cycling supports compulsory wearing of cycle helmets when cycling for children and adults”.
74. However the policy is controversial, contested, based on flawed science, and may soon change. Firstly, the policy was adopted only in 2005. Up until that time, the BMA policy was against compulsion on public health grounds. The BMA's own public health committee remains against compulsion.
75. Secondly, the policy has been modified, via a motion brought by that committee, to “support a law only once helmet use is ‘high enough that cycle use will not suffer.’ Because of this, the BMA has not been active in pressuring the government for legislation.” (Appendix 1, section 2v fourth paragraph).
76. Thirdly, the change of policy was on the basis of a misleading statement from its own Board of Science and Education. Hence the repeated efforts to reverse the decision! The details of the errors in this statement, which is unworthy of a body like the BMA, are at Appendix 3.
77. Fourthly, the policy is not a well-accepted policy within the BMA. For a full account of the controversy, and the attempts to reverse the decision, see Appendix 1, section 2v. I have laboured this point as Deputy Green's original Report covers itself with a cloak of expertise and science., and as the BMA is the largest membership medical organisation in the UK.

World Health Organisation (WHO)

78. Deputy Green's P.4 Report implies that helmet compulsion is the official policy of the WHO. I suspect that in a vast organisation like the WHO there is no “official policy” on this issue. The quote in P.4 Report comes from the “WHO Helmet Initiative” website. This now defunct initiative was the brainchild of an American pro-helmet adjunct professor named Philip Graitcer who “mysteriously managed to get authorisation from somewhere within WHO (probably their injury prevention people) to use the WHO logo for a WHO Helmet Initiative.”¹²
79. However the WHO's publication “Collaboration between the health and transport sectors in promoting physical activity: examples from European countries” (see www.euro.who.int/Document/E90144.pdf), does not mention the word “helmet” once, which suggests that for that part of the WHO helmet-promotion is not an issue.
80. From that document's foreword comes the following –
- “The promotion of safe cycling and walking in urban areas is an area that presents great opportunities for ‘win-win-win’ approaches to achieve goals of the transport, health and environment sectors. The improvement of safety of

¹² Personal communication from Roger Geffen, campaigns director, CTC

cyclists and pedestrians is one of the important means that is likely to encourage more people to become physically active in their daily life, reduce the number of injuries among cyclists and pedestrians, as well as congestion, emissions of air pollutants and noise, and increase energy efficiency and the quality of urban life.

Cycling should be promoted by both national and local governments and be coordinated with policies on transport, land-use, environment, health and finance. It should benefit from dedicated infrastructure and be well connected and combined with other modes, notably public transport and walking. In order to enhance the safety of cyclists and pedestrians, the volume and the speed of motorized traffic would need to be limited, whenever appropriate.”

81. This is more or less the approach which I suggest that we follow here in Jersey (see below, paragraphs. 66-70). Deputy Green is guilty of selective quotation!

Nick Payne, Consultant A&E Paediatrician, Jersey General Hospital

82. He states –

“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.”

83. There is no evidence here of what these injuries were, nor of whether helmets would have prevented any of these injuries, nor of how they occurred or could have been prevented, if at all. Nor is there any evidence of whether cycling is a greater cause of injuries or head injuries than other causes.

84. This kind of emotional statement has the unfortunate effect of implying that cycling is an exceptionally dangerous activity for children and helps to create an atmosphere of fear around cycling which inevitably rubs off on parents. But cycling is not exceptionally dangerous – see paragraphs 14-19 above.

85. The doctor did not consider the effects on long-term health, quality of life, independence and self-esteem of a too inactive childhood.

86. His statement continues –

“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.” (my emphasis). As I have shown above (paragraphs 20 onwards) this is untrue. Many places have combined more cycling with reduced accidents. The consultant perhaps should support this goal instead.

87. Mr. Payne has strayed into an area which he knows little about and he has got it wrong. We all do, it is normal. The problem is in the fact that this statement (made off the cuff to a JEP reporter?) has been cited as “expert opinion” when it isn’t. It is the opinion of a person who is expert at something else.

Association Paediatric Emergency Medicine (APEM)

The quote says: “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.”

88. Anything? Like keeping them indoors all their lives? As stated above, cycling is relatively low-risk so why is APEM picking on cycling?
89. More profoundly, consider this from the report prepared for the National Children’s Bureau (NCB) by Tim Gill (Reference (i), page 33) –

“However there is a growing Physical risks.”
90. The paper talks about “managed exposure to risk.” It could well be argued that the accidents portrayed in Appendices 4 and 5 of the P.4 Report demonstrate a poor assessment of risk.
91. Risk is a fact of life. As an emotional response, APEM’s statement is understandable. But for legislating, it cannot be the only guide, particularly when the costs of inactivity in all age groups are far far higher. (see sections on health, above, paras. 56 – 61 and 28-31)

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

“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.”

92. First, Dr. Eynon assumes this to be true – in fact expert opinion is divided. Second, this would mean fewer cyclists and each cyclist will have a greater risk of injury (see above, section on Safety-in-Numbers) If this higher risk per cyclist is outweighed by the decline in cycle numbers then Dr. Eynon will see fewer cycle-related injuries. The logical end-point of this way of thinking is to ban cycling altogether.
93. This would represent a huge loss in public health, huge costs associated with that as well as many more premature deaths, a serious impact on many States policies, not to mention the unintended consequences of more accidents caused by the same people doing their risk-taking behaviour or going home drunk by car instead of by bike.
94. “Prevention is far cheaper than treatment.” Amen to that. So where is the call for effective road safety measures? Why not a word, for example about speed? Or drink-driving?
95. “Doctors, even A&E consultants, have no more wisdom about this subject than anyone else. Britain’s A&E departments increasingly deal with the acute medical problems of a sedentary population. Along with, happily rare, cyclist trauma they see thousands of heart attacks, strokes and other diseases related to physical inactivity. More cycling, helmeted or not, might save them a lot of work.”¹³

1. ¹³ Closing words of BHRF Commentary on “Promoting safe cycling and helmet use” a briefing for the Board of Science, British Medical Association, March 2008 by ALM Curran

Expert opinion ignored by P.4 Report - NCSB (National Cycling Strategy Board)

96. The National Cycling Strategy Board's view is as follows (quoted in (i), page 45) –

“Arguments that appear to disavow the efficacy or utility of cycle helmet wearing, or on the other hand claim it as the major influence in reducing injury to cyclists, are both wide of the mark. In particular, campaigns seeking to present cycling as an inevitably dangerous or hazardous activity, **or which suggest that helmet wearing should be made compulsory**, risk prejudicing the delivery of those very benefits to health and environment which cycling can deliver: they also serve to confuse the general public about the wider social and economic advantages of cycling. As a result, the NCS Board is anxious that the question of wearing helmets is placed in its proper context.

The NCS Board has a clear view on this issue, which is that it must remain a decision for individuals as to whether to wear a helmet for some or all of their various cycle activities. Parents will need to take this decision on behalf of their children, bearing in mind all the particular circumstances. **But any mandatory requirement to wear helmets on all occasions would greatly dilute the benefits which safe cycling can offer our society as a whole** (NCSB 2004).” (my emphasis)

Expert opinion ignored by P.4 Report - PACTS (the Parliamentary Advisory Council for Transport Safety)

97. Their view is as follows (quoted in (i), page 45)

“Cycle helmets are effective in reducing the severity of head injuries in certain types of cycle accident, but they are only designed to withstand low energy impacts. **It is important that helmet users are aware of the limitations of helmets**, and this would be enabled by mandatory labelling and incorporating education on the correct fitment and wearing of helmets into cycle training. Other road users should also appreciate the continued vulnerability of cyclists, despite their wearing helmets. While the encouragement of wearing of helmets would be appropriate, **imposing a mandatory requirement may bring about a reduction in the number of people cycling with consequential counter-productive public health results**. Finally, it must be remembered that the wearing of cycle helmets is a secondary safety measure which only aims at reducing injury in the event of a collision. Crashes can be prevented in the first instance by encouraging better road behaviour by all road users, by making the cycling environment safer and by enforcing existing traffic law. Speed management can be particularly effective in reducing casualties: in Hull, for example, 20 mph zones have reduced cyclist casualties by 38 per cent and child cyclist casualties by 50 per cent... **PACTS believes that these measures to prevent accidents must not be set aside in favour of the limited level of protection to be offered by helmets** (PACTS 2004).” (my emphasis)

Expert opinion ignored by P.4 Report - RoSPA

98. The Royal Society for the Prevention of Accidents says this (quoted in (i), page 46) –

“RoSPA recommends that all cyclists wear a cycle helmet that meets a recognised safety standard. Cycle helmets, when correctly worn, are effective in reducing the risk of receiving major head or brain injuries in an accident.

It is recognised that helmets do not guarantee protection for the wearer, nor prevent accidents from happening in the first place. The most effective ways of reducing cyclist accidents and casualties are to improve the behaviour of drivers, improve the behaviour of cyclists and to provide safer cycling environments. However, wearing a cycle helmet is a simple, low cost and effective way that individual cyclists can protect themselves.

Surveys in 2000, showed that only 22 per cent of cyclists on major built-up roads wear helmets. Education and publicity measures to promote the use of cycle helmets should continue.

RoSPA does not believe that it is practical to make the use of cycle helmets mandatory because voluntary wearing rates are too low. Should compulsory cycle helmet legislation be considered in the future, it should be based on evidence that cycle helmets are effective in reducing cyclist casualties, and on evidence that voluntary use is sufficiently high for enforcement of the law to be practical. There may be stronger arguments for limiting mandatory cycle helmet use to child (rather than all) cyclists. **As cycling provides health and environmental benefits, the likely effect of such legislation on cycle use should also be assessed (RoSPA 2001b).**” (my emphasis)

99. Indeed. And the evidence from the UK ((i), page 22) and from Australia ¹⁴ is that compulsion would reduce the numbers of young people cycling. See paragraphs 46 – 49 for the implications of a further drop in child cycling in Jersey.

h) P.4 Report – what other legislatures are doing

100. Deputy Green lists probably every helmet law. Appendix 1 section 2(iv) gives the true picture across the world. It is noteworthy that no country with high cycling rates has compulsion. It is also noteworthy that the UK Department for Transport has recently issued a statement stating that they will not pursue compulsion. The main reason given? That it would risk reducing the number of people cycling.

i) P.4 Report – the scientific evidence for helmet effectiveness

The evidence at the level of whole populations

¹⁴ “In New South Wales, 51% of schoolchildren owning bikes, who hadn't cycled in the past week, cited helmet restrictions, substantially more than the numbers citing other reasons, including safety (18%) and parents (20%).”^{w12} (zzz, section headed “Analysis of cycling patterns” 2nd paragraph)

101. From Robinson 2006 we read the following –
- “In Western Australia, helmet wearing was negligible before 1980, increasing to about 37% just before the law was introduced, when it rose to 82%.⁷ As in South Australia, the trend in head injuries among cyclists is similar to that for other road users” (Ref (vii), section headed “Helmet wearing and head injuries” first paragraph).
102. Therefore if it is claimed that the helmet wearing is responsible for the drop in head injuries among cyclists, it follows that it would have to explain the drop in head injuries amongst pedestrians and vehicle occupants as well. The real explanation is that there is something else going on separate from the issue of wearing helmets.
103. “In New Zealand, most primary school children were already wearing helmets before the law but helmet wearing among adults increased from 43% to 92% after the law was enacted. If helmet laws were effective, the percentage of adults with head injuries should have fallen substantially more than the percentage of primary school children, but it did not.” All these statements are of course referenced in the original paper.
104. “Case controlled studies (of the type cited by Deputy Green) predict that a large increase in helmet wearing should translate into fewer head injuries among cyclists, but Robinson was unable to detect any clear trends. She did find unambiguous evidence of reduced levels of cycling but no apparent effect on percentage head injuries for a large increase in helmet wearing. The BMA briefing offers nothing to explain this important finding. “(see <http://www.cyclehelmets.org/1188.html> which has references.)
105. Explanations offered by researchers include risk compensation, increased risk of rotational injuries, and the flawed nature of the case control studies.

The evidence at the level of individuals

106. Case control studies like the ones cited in P.4 Report come up with startling figures for effectiveness, but these do not match what happens in the real world. They compare the injuries on helmeted riders presenting to a hospital with the injuries on unhelmeted riders. They have fundamental flaws. They are liable to confuse the effects of wearing a helmet with the effect of being the sort of person who would choose to wear a helmet. As Robinson puts it –
- “Cyclists who choose to wear helmets commit fewer traffic violations, have higher socioeconomic status, and are more likely to wear high visibility clothing and use lights at night. Helmeted children tend to ride with other cyclists in parks, playgrounds, or on bicycle paths rather than on city streets, and (in the United States) be white rather than other races. Helmeted cyclists in collision with motor vehicles had much less serious non-head injuries than non-helmeted cyclists (suggesting lower impact crashes). Unless case-control studies record and fully adjust for all these confounders, their effects may incorrectly be attributed to helmets.” (see (vii), section headed “Effect of helmets” first paragraph).

Thus these studies are not comparing like with like – hence the exaggerated claims for the effectiveness of helmets which are not borne out in real life.

107. The most comprehensive and recent review of the literature on cycle helmet effectiveness was prepared for the Department of Transport by the Transport Research Laboratory in November 2009 ^{xii} On page 27, the authors write: “There are methodological shortcomings with many of the studies reviewed, and these are discussed in detail in Appendix E. These shortcomings make it **impossible to definitively quantify the effectiveness or otherwise of cycle helmets** based on the literature reviewed.” ¹⁵ (my emphasis). And indeed the careful analysis by the authors of many published papers and their shortcomings bears out this view.
108. They say in their summary that helmets would be most effective at protecting against minor injuries and that “there is a difference between hospital-based studies, which tend to show a significant protective effect from cycle helmets, and population studies, which tend to show a lower, or no, effect.” ¹⁶
109. The report also says: “... Most importantly, not one study meets the criticism of examining the effect of helmet wearing on diffuse axonal injuries, which are often offered as particularly relevant in the debate over cycle helmet effectiveness, due to their serious nature and particularly the long-term impairment that may result from these injuries” ¹⁷
110. “Some studies are even more disturbing, seeming to show that helmets actually add to risk of cycling. “One of the most disturbing aspects of rising helmet use has been a corresponding increase in deaths. Cyclist deaths sharply increased in the years when helmets first became popular in the UK, despite steady declining trends for pedestrians. Cyclist and pedestrian casualties ubiquitously show near perfect correlation over time. A sudden break with correlation, in the very years when helmets became popular, is thus highly disturbing. Analysis of US cyclist fatalities up to the late 1980s also found a positive correlation of deaths with helmet use.” (see <http://www.cyclehelmets.org/1188.html> which has references.)
111. For a more detailed and thorough evaluation of the evidence about cycle helmet effectiveness, including commentary on the Cochrane review praised so fulsomely by Deputy Green in his report, please go to Appendix 1 section 3 (ii) and (iii).
112. For more on the scientific basis of the effectiveness of helmets to protect against serious injury see ^{xiii} and ^{xiv}

j) Conclusion

¹⁵ This is the same review as featured on the front page of the JEP on January 4th, where Deputy Green is quoted as saying: “The evidence is very clear that helmets do save brain injuries and so save lives and the UK Department for Transport have just come out with a report saying that.” Maybe he was misquoted!

¹⁶ Page viii, Ref zzz.

¹⁷ Page 99 Ref. zzz

113. Clearly the scientific case for helmet compulsion is contested. The real-world population studies just do not bear out what the hospital based “case control” studies would predict, for reasons which I have outlined above at paragraph 106 and 107
114. However the benefits of cycling to the community and to the individual are well-known and proven and the health benefits alone in terms of lives saved dwarf any reduction in severity of the very few serious cyclist accidents we have in Jersey, which might be brought about by helmet compulsion. Added to which other measures could and should be employed to reduce these accidents.
115. The benefits to the States are likely to be very large indeed. These would be calculated as part of the review which I am calling for in this amendment.
116. Experience elsewhere tells us that we can achieve both an increase in cycling levels and an increase in road safety in absolute terms if we are committed to the cause of road safety.
117. I put it to members that –
- we should not go ahead with legislation in one jump on a matter where there so many unintended consequences and where the price of getting it wrong is so high
 - The task is to tackle the dangers in the road environment at source, to prevent accidents from happening, rather than try to lessen their effects when they have happened.
 - we should seriously consider whether we should not be going for the “positive option” of fulfilling many States objectives by promoting cycling and at the same time reducing accidents and injuries.
118. These matters would all form part of the review which this amendment is calling for.

ENDNOTES

ⁱ “Cycling and Young People – A Review” by Tim Gill for the national Children’s Bureau, December 2005 (Also attached to my e-version of this Addendum)

ⁱⁱ Jacobsen P. *Safety in numbers: more walkers and bicyclists, safer walking and bicycling*. Injury Prevention vol. 9 pp205-209, 2003 (see <http://ip.bmj.com/cgi/reprint/9/3/205>). (Also attached to my e-version of this Addendum)

ⁱⁱⁱ from CTC powerpoint presentation on the “Safety – in – Numbers” effect (Also attached to my e-version of this Addendum)

^{iv} “Healthbenefits – digest”, CTC Roger Geffen, no date available, (after 2007) (Also attached to my e-version of this Addendum)

^v “COLLABORATION BETWEEN THE HEALTH AND TRANSPORT SECTORS IN PROMOTING PHYSICAL ACTIVITY: EXAMPLES FROM EUROPEAN COUNTRIES”, WHO Europe, Dombois et al , 2006

^{vi} TTS: “Sustainable Transport Policy Consultation Document 2009

^{vii} Robinson, DL “No clear evidence from countries that have enforced the wearing of helmets” BMJ 2006

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- ^{viii} Andersen L et al, *All-cause mortality associated with physical activity during leisure time, work, sports and cycling to work*. Archives of Internal Medicine, 160: 1621-1628, 2000 (see www.md.huji.ac.il/courses/ebm/pdf/br4.pdf).
- ^{ix} Tuxworth W et al, *Health, fitness, physical activity and morbidity of middle aged male factory workers*. British Journal of Industrial Medicine vol 43. pp 733-753, 1986.
- ^x Paffenbarger R et al, *Physical activity, all-cause mortality and longevity of college alumni*. New England Journal of Medicine, vol. 314(10) pp 605-613, 1986 (for abstract see <http://content.nejm.org/cgi/content/abstract/314/10/605>).
- ^{xi} Boyd H et al, *Health-related effects of regular cycling on a sample of previous non-exercisers: resume of main findings*. Bike for Your Life Project and CTC, 1998. Findings summarised in DETR (1999), Cycling for better health, Traffic Advisory Leaflet 12/99, DETR (see www.roads.dft.gov.uk/roadnetwork/ditm/tal/cycle/12_99/index.htm).
- ^{xii} “The Potential for cycle helmets to prevent injury – a review of the evidence” Hynd D., et al. TRL, November 2009
- ^{xiii} Assessment of current bicycle helmets for the potential to cause rotational injury
V J M St Clair, B P Chinn. TRL Project Report PPR213, 2007, ISBN: 978-1-84608-846-
Brief Commentary on the above from the Bicycle Helmet Research Foundation website (attached).
Also at: <http://cyclehelmets.org/1183.html>
Sample extract: “Corner et al. (1987) also found by experiment that the mass which a helmet adds to the head can actually increase angular acceleration, which is linked to severe injury to the brain. The suggestion in TRL (Transport Research Laboratory) report PPR213 (p. 49) that more severe injuries may occur to a helmeted than an unhelmeted head is consistent with this finding.”
And
“Australia went ahead with compelling cyclists to wear them (cycle helmets). As more cyclists wore helmets, their risk of severe injury to the brain increased as is apparent in the official statistics for deaths by head injury, shown in Table 1”
- ^{xiv} “The efficacy of bicycle helmets against brain injury,” by W.J.Curnow,
Accident Analysis & Prevention, Volume 35, Issue 2, March 2003, Pages 287-292
http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V5S-452W8TW-3&_user=10&_coverDate=03%2F31%2F2003&_rdoc=1&_fmt=high&_orig=search&_sort=d&_docanchor=&_view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=ec34b59acce28c0988a5652717a10686

From the abstract: “The meta-analysis of case-control studies does not provide scientific evidence that such helmets reduce serious injury to the brain as it does not distinguish injuries caused through fracture of the skull and by angular acceleration.”
- ^{xiv} Wardlaw, M. Cycling Research – bad science briefing, 2009 (Also attached to my e-version of this Addendum)

APPENDICES

APPENDIX 1	Peer review of proposal for cycle helmet legislation: “States of Jersey – Compulsory Wearing of Cycle Helmets”
APPENDIX 2	Bibliography of published work by Malcolm Wardlaw
APPENDIX 3	Analysis of the Statement by the BMA’s Board of Science and Education
APPENDIX 4	Extracts from the Sustainable Transport Policy – Consultation Document
APPENDIX 5	Sustrans Schools Policy example
APPENDIX 6	Pupils cycling in Wales triples
APPENDIX 7	Personal testimony from Roadpeace website

Note: Footnotes are as normal.

All “references” are to the main references at the end of the Addendum

Peer Review of proposal for cycle helmet legislation: "States of Jersey – Compulsory Wearing of Cycle Helmets".

1. Introduction;
 2. Important evidence not presented in the proposal;
 3. Commentary on evidence presented;
 4. Conclusion;
- Profile of peer reviewer;
References.

1. Introduction

A deputy of the States of Jersey has submitted a proposal (hereafter "the proposal") for legislation to make cycle helmets compulsory in the Bailiwick of Jersey. The proposal offers two options: a) only for those aged 18 and under, and; b) all ages of cyclists.

The sponsor of the proposal explains that his (now grown up son) suffered a serious head injury when cycling as a child. This has led to life-long consequences.

The proposal relates to an important issue, which is frequently in the media. There is general public support for a revival of cycling, but also concerns about its safety record. The proposal includes several media reports of injured cyclists who were or were not wearing a helmet, evidencing this public concern.

2. Important evidence not presented in the proposal

The absence of certain evidence from the proposal must first be noted:

- i) Cycling as a cause of injury;
- ii) Risk in cycling;
- iii) Expert opinion;
- iv) Helmet laws in other countries;
- v) Division within the British Medical Association;
- vi) Cycle use with helmet promotion and enforced helmet laws;
- vii) Costing cycle helmet laws;
- viii) Summary of evidence omitted from proposal.

i) *Cycling as a cause of injury*

Concerning the extreme case of child head injury mortality, a reviewⁱ of causes of death in Scotland of 0-14 year olds found that during 1986-1995, the leading cause was child pedestrian accidents (41%) followed by "Other road traffic accidents" (31%) and falls (11%). Cycling is not mentioned explicitly as a cause. This is because it was not important enough to separate; for instance, of all child fatalities in road traffic accidents, c. 11% are cyclists. In the UK as a whole, the number of child cyclist deaths is extremely low, in the range 10-15 annuallyⁱⁱ. There is about five times that number of child pedestrian deaths.

Concerning serious head injuries to children, the dataset of the NHS Information Centre, the Hospital Episode Statistics (which are coded according to the ICD10 system) shows that in recent years there have been typically 33,000 head injury

admissions of children, of which c.8% were cycling related. Of that 8%, roughly 90% were in falls, and 10% from road traffic impact. Which is to say; *less than one percent* of all serious head injuries to children are due to child cyclists in road traffic accidents. This dataset reiterates that walking is the great cause of head injuries: "falls on level ground", "falls at elevation" (i.e. mostly falling down steps) and pedestrian road accidents account for just over half (c.55%) of all serious head injuries to children. A copy of this dataset for 1995-2004 may be obtained from thisⁱⁱⁱ web page.

Quick summary of causes of serious head injury in UK children –

Cycling (falls & RTA's)	8%
Walking (falls & RTA's)	55%
Other*	37%

*assault, horse riding accident, miscellaneous

Reading through the proposal, one might gain the impression that children only suffer head injuries in cycling accidents, since no other cause is mentioned. The range of evidence shows that cycling is actually very much a lesser cause of head injury, and walking/falls the leading cause.

ii) *Risk in cycling*

Risk assessment of cycling has not been thorough in the past. It would appear that cycling on the roads was simply assumed to be dangerous due to the rise of motor traffic. Cyclists complained that cycling was getting dangerous. This was especially true in countries where no strong cycling culture had evolved prior to the Second World War, with the post-war transfer to driving leaving cycling as a minority sideline by the late 1960s. The official viewpoint tended to centre on the high fatality rates per mile travelled of cyclists relative to drivers, typically about ten times higher. One thorough risk assessment was completed by the (then) Transport and Road Research Laboratory in 1988^{iv}, but it was not published and thus never informed the debate.

Until quite recently, it was not recognised that pedestrians faced higher risks per mile than cyclists. Since walking is not widely regarded as dangerous, this provoked a few researchers to reconsider the basis by which risk in personal travel should be judged. Risk per unit distance appears to be of limited value, due to the high mobility of drivers relative to cyclists and pedestrians. The average driver might cover 12,000 miles per year, but few cyclists cover more than 2,000, and few people walk more than 700 miles per year (more specific personal travel data are presented in the annual *National Travel Survey*^v and in *RCGB*ⁱⁱ). The risk per hour is highly pertinent, since experience shows that the average person travels an hour per day and this does not change across time (see NTS). Roads become congested because more people drive and fewer people walk, cycle or take public transport, not because people spend more time overall travelling.

The risk per year is also pertinent, as it is an indication of long term risk.

Risk assessments give different results for different countries, and also different results for different age groups. Direct comparison of young male drivers and cyclists in Britain found little difference in risk of fatality per hour^{iv}. Comparing all ages, the cyclists were four times more at risk than the drivers in Britain. This does not mean cycling in Britain is a risky thing to do, since the result is biased against cycling by the predominance of young males. Another bias comes from the very low risk miles of

driving on motorways and trunk roads. A cyclist would doubtless take the far safer bus or train for such trips, although these distances are not included in the official figures. Yet another bias is that it is impossible to capture all the cycling that happens, so risk will be over-estimated. It would be fair to conclude the risk ratio between British cyclists and drivers is between 1 and 4. This is not enough to be significant to the individual. It is less than the range of risk in driving. For instance, driving at night is about four times riskier than in the daytime. Driving on all-purpose roads may be ten times more risky than on a motorway. Young male drivers are ten times more at risk than middle-aged drivers. An individual choosing to cycle rather than drive (still less walk) is thus not taking risks outside the range normal in daily life.

There are plenty of industrialised countries where drivers face higher long term risks than British cyclists. Cycling in France is probably safer than driving there, although the French drivers' safety record is not good (see ref^{vi} for more international comparisons). Driving helmet use in France is zero.

Concerning children specifically, risk assessment is difficult since children may be exposed to traffic by playing in the street, but are not travelling anywhere. They may be transferring rapidly between cycling and walking/running. This makes measures of risk per unit distance or per hour rather problematic. Such data as there are show that the risk per unit distance is about the same for children whether cycling or walking^{vii}. The injury review of Section 2.i made it clear that cycling is a lesser cause of injury for children.

In summary, there is no objective case for promoting cycle helmets, more than walking helmets, either to children or adults. It must be stressed that cyclists very rarely inflict injury on others. In the UK, there are typically three pedestrian deaths annually after collision with a cyclist, and three cyclist deaths after impact with a pedestrian (see *RCGB* for details). This is a point rarely made in discussions about risk, which are apt to avoid the awkward fact that most severe and fatal injuries to pedestrians and cyclists are inflicted by motor traffic. A reduction in motor traffic speed, volume and injury privilege is the kernel of the road safety issue for everybody.

iii) *Expert opinion*

The proposal quotes a number of A&E doctors in support of the use of cycle helmets. Yet the opinion presented is partisan, and none of those consulted has had work published on the subject.

The Transport & Health Study Group is the leading scientific society in the UK concerned with the links between transport and public health. It is opposed to helmet compulsion for any age group of cyclists. The Public Health Committee of the British Medical Association is likewise against helmet compulsion and opposes the current stance of the BMA. The Bicycle Helmet Research Foundation (BHRF) was founded in 2003 by doctors, transport experts and independent researchers and is against helmet compulsion in any age group. Many of its Editorial Board have had papers published in peer reviewed journals and are themselves peer reviewers.

None of the above authorities were consulted for an opinion about the proposed Jersey law.

The most authoritative expert opinion must be drawn from court cases where witnesses give evidence that will be tested by forensic inquiry. These cases arise when

insurance companies attempt to adjust the loss down by accusing an injured cyclist of contributory negligence for not wearing a helmet. No such case, having proceeded all the way to a trial and judgement, has ever succeeded. In every case, the court has concluded from medical evidence that a helmet would not have reduced the injury suffered. Informed legal opinion is that these cases should not succeed^{viii,ix}.

In the experience of the peer reviewer, those who opine strongly in favour of helmet use have formed their views usually on the basis of anecdote, without reference to objective criteria. For instance, given the very high number of deaths and injuries from walking relative to cycling, one has to be baffled by A&E doctors who remain unmoved towards helmets for child pedestrians at least. The fact that they are not tells all about the deep-seated social discrimination against cycling. This^x doctor agrees.

iv) *Laws in other countries*

Cycle helmet laws have been passed in a number of states, provinces and countries, as indicated in the proposal. A couple of patterns are clear in the distribution of these laws:

1. they have been passed in countries where cycling is a marginalised activity, and most of the laws only apply to children, who have no political force;
2. most of the laws were passed before 2000, which is to say, prior to the appearance of population-level studies showing the failure of laws to improve safety, and prior to the realisation by expert opinion within cycling that these laws were a threat to safety and public health.

In general, cycle helmet laws have either not been enforced at all or only loosely enforced. The helmet law of New Zealand is strongly enforced, with evident consequences to the level of cycling (see section 2.vi). The state laws of Australia appear to be not so rigorously enforced as at first and have been effectively repealed in one state.

Helmet laws have been proposed and rejected in many cases. There are even two cases where they have been introduced and then partially repealed. The proposal does not mention this, nor does it describe why the proposed laws were rejected. The following are known recent cases:

2009 – partial repeal of Israel helmet law to legalise adult cyclists riding without helmets in towns. This was because the helmet law had driven cycle use down^{xi}, even though it was not much enforced.

2007 – Saskatoon, Canada: regional helmet law rejected^{xii}.

2006 – Ontario adult helmet law rejected. The child helmet law of 1996 was never enforced, a detail omitted from a widely cited paper^{xiii} claiming that this helmet legislation did not deter child cyclists. This paper was central to the British Medical Association's change of stance in 2005 to support helmet legislation.

2006 – Austin, Texas: regional helmet law for adults defeated^{xiv}.

2005 – Manitoba, Canada: regional child helmet law proposal rejected^{xv}.

2004 – UK helmet law for children proposed in a Private Member's Bill, not supported by government or any cycling organisation. Defeated.

2004 – Northern Territories, Australia partial repeal of helmet law to allow adult riding without a helmet on cycle paths. General decline in enforcement. Cycle use recovered and helmet use fell to about 20%. Northern Territory has the highest per capita utility cycling rate of any Australian state (by a factor of at least two).

This is not intended to be an exhaustive list. Helmet laws were proposed in Poland and France, and the proposals were dropped once the full range of evidence became available. The typical pattern is of initial interest in legislation due to a superficially persuasive proposal, followed by waning interest as the low actual risk of cycling, the low actual effectiveness of helmets, and the extensive harm of deterring cycling becomes clear from consultation.

It is hoped that this pattern is followed in the Bailiwick of Jersey.

A summary^{xvi} of helmet laws and their effects is available from the BHRF.

v) *Division within the British Medical Association*

The BMA has traditionally been against helmet laws for cyclists due to the large health benefits of cycling. Early work^{xvii} showed that the health benefits of cycling were much greater than the risks (by a factor of about 20). The BMA revisited the issue in the late 1990s and in its report, based on broad consultation, reaffirmed its opposition to helmet laws^{xviii}. It noted that there was evidence helmet laws deterred cycling, and this would be a net loss to society.

Since then, confusion has arisen because most helmet laws are not enforced. Certain researchers have added to this confusion by claiming that legislation does not deter cycling, without mentioning that the law in question was not enforced. This was the case of a claim^{xix} made about the Ontario child helmet law of 1996. Such claims are obviously disingenuous, but they can be influential if they appear in what is normally assumed to be a reputable publication.

In 2004, the BMA was persuaded via internal lobbying to announce a change of stance to support helmet legislation. This was very much a *fait accompli*, without any consultation from wide ranging opinion as with the 1999 report. The new policy document claimed, on the basis of the single paper cited above, that helmet legislation did not deter cycling, thus legislation should proceed. The new policy was approved by a modest majority at the Annual Representatives' Meeting in 2005.

However, the Public Health Medicine Committee of the BMA remains opposed to legislation. It succeeded in persuading the BMA to modify its stance to support a law only once helmet use is "high enough that cycle use will not suffer". Because of this, the BMA has not been active in pressuring the government for legislation.

At the 2006 ARM, a further vote on the issue was taken and this time the margin was much narrower; so close that electronic vote counting had to be used. The policy was held, but by a margin of less than 10%. Given the natural difficulty of challenging established policy via an ARM vote, which would be virtually a revolution, the closeness of the vote is significant.

In every year since 2006, submissions have called for further votes, but the BMA has refused to allow them. Thus the BMA as a professional body is not solidly behind

helmet legislation. It is traditionally against helmet laws, with the recent change of stance only in place and held following doubtful use of procedure.

The Transport and Health Study Group^{xix} is opposed to legislation and is at best ambivalent about the promotion of helmets. It is currently preparing a new edition of *Health on the Move*, last released in 1992. The new version contains an extensive section on cycling, showing that it is safe (in the everyday sense of the word) and healthy and must be encouraged to address the many harms of the over-motorised society.

vi) *Cycle use with helmet promotion and enforced helmet laws*

Transport data from countries where the laws have been enforced, and even some places where the laws have not been enforced, reiterate the lesson that helmet laws deter cycling. Four leading examples are given.

In New Zealand, the national Household Survey^{xx} shows that the number of cycle trips (per capita) nationally dropped a staggering 55% between 1989 and 2005. This was the period in which helmets were strongly promoted and then made law (in 1994).

In Australia, as is widely known, cycling fell by about a third after the helmet laws were introduced and enforced. It is particularly notable that cycling to work (modal split) fell by up to half and never recovered, as revealed by analysis of census data^{xxi}. This is important, because cycling to work is a key measure of utility cycling. A culture of daily utility cycling is the key to building a culture of active travel, such as exists in many European countries. High levels of cycling only occur in countries with high levels of utility cycling.

It is interesting to contrast cycle use in Denmark and the Netherlands. These countries have long-established cycling cultures and extensive infrastructure in place. There are no helmet laws in either country, but Denmark began promoting cycle helmets for children in the early 1990s and since 2008 has had strong promotions for all cyclists. Data available from Statistics Denmark show national cycle use fell by 25% between 1993 and 2001 (3.1Bn to 2.3Bn kilometres). Whereas, in the Netherlands the government has been more clearly supportive of cycling programmes and has eschewed helmet promotion. The Dutch Bicycle Master plan shows cycle use remained constant or slightly increased in the same years.

In the UK, long term traffic data (see refⁱⁱ) show that cycle use grew more than 50% during the 1970s, and by the mid 1980s had recovered to levels not seen for twenty years. Then the recovery reversed with a fall of a third in national distance cycled by 2000. Since then there has been stagnation or a slight fall in per capita cycle use, despite extensive and increasing efforts to get more cycling. This reversal of fortune in the mid 1980s coincides very closely with the introduction of helmet promotion. The reduction in cyclists has been greater than the increase in helmet use.

A more extensive examination of the deterrence of cycling by helmet promotion is available^{xxii}.

vii) *Costing cycle helmet laws*

Various attempts at cost-benefit analysis of cycle helmet promotion or compulsion have been made. These usually only consider the cost of buying and replacing helmets

relative to the costs to society of head injuries, and tend to assume a level of injury prevention not seen in reality.

A more comprehensive mathematical model^{xxiii} has recently been developed. This allows a range of scenarios to be studied. For instance, one might set up quite a generous scenario in which helmet use cuts head injury costs by 50% and helmet legislation only cuts cycling by 20%. It must be stressed that such a scenario is wildly optimistic relative to any documented case. Despite the unrealistically optimistic assumptions, the model shows a large inflation of public health costs in the UK following a law. This model shows that there are no realistic scenarios for a helmet law to be beneficial to a society. The model concludes that a helmet law in Britain would incur annual costs of c.£250 million, even with the generous assumptions made above. In practice the costs would be much higher.

viii) *Summary of evidence not presented in the proposal*

There are no data given analysing the causes of injury to children, or the population, or how cycling contributes as a cause. There is no risk assessment. The list of laws in other countries does not include cases where laws have been considered and rejected, nor explain why the laws were rejected. There is no acknowledgement of the great contribution cycling makes to public health and road safety, nor recognition that enforced laws harm society by suppressing cycling.

The expert opinion section is limited to informal comments and does not reflect the actual range of expert opinion, such as might be heard in a court of law, where any statement must be justified.

3. Commentary on evidence presented

It would be excessively time-consuming to critique every opinion piece and paper cited in the proposal. Instead, this peer review will use the Cochrane Review of Bicycle Helmets^{xxiv} as a "case in point" to illustrate the inherent flaws in the bulk of cycle helmet research. This approach is adopted as the Cochrane Review is considered of the highest quality and its flaws may be described with the greatest accuracy.

- i) Doubts about helmet effectiveness and case-control studies;
- ii) Flaws in case-control studies of helmet effectiveness – The Cochrane Review;
- iii) Conclusions on cycle helmet research;
- iv) Financial costs of care for those with lasting brain injury.

i) *Doubts about helmet effectiveness and case-control studies*

By way of preamble, doubts first grew as to the effectiveness of helmets after they were made compulsory (all ages) in Australia during 1990-94. Although early reports claimed the laws had been successful in reducing deaths and head injuries, a few researchers noted that the reductions did not appear greater than seen for pedestrians and car occupants in the same period. Indeed, head injury deaths actually fell by less for cyclists (-30%) than pedestrians (-38%) or "all road users" (-42%) in the period of helmet law enforcement^{xxv}. The decline in deaths that had been attributed to helmet laws was actually due to economic recession and road safety campaigns, and it was less than to be expected without helmets.

There is a disturbing point to be made about the above results. It is normally observed that cyclist and pedestrian deaths correlate very closely with the trend for all road deaths. This was the case for pedestrians (38% versus 42% fall), but for cyclists the decline in deaths was much less than the 42% trend, at only 30%. This is doubly peculiar, in view of the deterrence of cycling as the law was enforced. One is left with the suspicion that the result was much worse with helmets than was to have been expected without them.

Careful analysis of several Australian states confirmed that any fall in head injuries had been more or less matched by a fall in non-head injuries^{xxvi}. In short, there had been a drop in the number of head injuries due to a drop in all hospital admissions of cyclists, rather than because helmets were preventing (serious) head injuries. There was some prevention of scalp wounds, but not of more serious injuries.

The all-ages helmet law of New Zealand, introduced and strongly enforced from 1/1/94, provided another test for helmet legislation. Again, some early papers reported that the law had reduced head injury admissions, but as with Australia, the analyses failed to account for environmental effects.

Because of these shortcomings in the treatment of the Australian and New Zealand helmet laws, the base data were gathered and re-analysed. This paper concluded that large changes in helmet use had not noticeably affected serious head injuries in either case^{xxvii}. It was clear though, that cycling had been reduced by helmet legislation.

The above population-level studies have been ignored by policy makers as well as helmet campaigners. Instead, there is a persistent repetition of the results from discredited case-control studies. This includes the 2002 meta-analysis of evidence^{xxviii} for the Department for Transport. The latest review^{xxix}, just released, does consider population level studies, but the authors do not appear to have appreciated the methodology of trends analysis. They do acknowledge that the medical evidence on cycle helmets is inconclusive. They fail to grasp the reasons for discrepancies in the results of medical research.

ii) *Flaws in case-control studies of helmet effectiveness – The Cochrane Review*

In case control studies, people with a particular outcome (such as head injury when cycling, the ‘cases’) are compared with ‘controls’ (such as, non-head injuries when cycling). The ‘cases’ and ‘controls’ are asked about previous ‘exposure’ (i.e. whether or not they were wearing a helmet at the time of injury). Case control studies are very useful for generating theories but are less good at confirming cause and effect, both because of difficulties with time sequences and recall bias and also because of confounding: there may be systematic differences between the cases and the controls that affects both the outcome (head injury) and the exposure (wearing a helmet).

The case-control studies were conducted on a best endeavours’ basis, but nonetheless can aptly be criticised for serious flaws. For instance, it is now known, from directly observed helmet surveys, that social class has a strong influence on helmet use by children.^{xxx} Recent experience has taught the perils of relying on case-control studies when personal choice is involved^{xxxi} because of confounding.

The largest case-control study ever conducted^{xxxii} gathered data on cyclists’ injuries in Seattle during a 2.5 year period from 1992. There were c.3,900 cyclists treated in Emergency Rooms, with adequate data being captured for c.3,400 cases. However,

only c.300 (9.4%) required admission. The low number of serious injuries, despite the prolonged data gathering period, underlines that cycling is not in fact a significant cause of serious injury even in a city of (at the time) 2.5 million. The study's conclusions regarding prevention of serious injuries thus rest upon a fairly small dataset. The results show a mysterious pattern, as displayed in Table 1 below:

Table 1 Case-control study of helmet use and injury in Seattle

Outcome	No. with helmet	No. without helmet	Odds Ratio
Fatality	1	13	0.07
Severe brain injury	15	47	0.24
Brain injury	62	141	0.33
Any head injury	222	535	0.32

Note: Odds Ratios are the measure that can be obtained from a case control study. In this case it is the ratio of the odds that someone wearing a helmet had that outcome compared with the odds that someone not wearing a helmet had that outcome. An odds ratio below 1.0 means the 'exposure' (helmet wearing) is protective.

The data show that, apparently, the protective effect of a helmet increases with increasing severity of injury. It is extremely difficult to accept such a result, and indeed, it is the opposite of what is seen in population level studies, which return the more sensible outcome of declining protection with increasing severity of injury. It must be the case that confounding factors systematically caused non-helmeted cyclists to be in more severe traffic accidents. This is consistent with the observation that helmet use is a function of social class.

The Seattle study dataset forms the core of the Cochrane Review of bicycle helmet effectiveness, which is taken to be the best evidence on helmets. Its small dataset of serious injuries and the above noted implausibility of the results are not widely recognised. On the contrary, the results are still widely cited in the literature and media as proven fact. A critique^{xxxiii} is also available of an earlier case-control study by the same authors. This study is the most widely cited in the literature, yet likewise shows evidence of serious confounding. The other main case-control study^{xxxiv} cited in the Cochrane Review took place in Cambridge, England and is likewise based on a small dataset of serious head injuries (104 cases). None of the studies considered socio-economic differences between helmet and non-helmet users.

iii) *Conclusions on cycle helmet research*

The previous section concentrated on the Cochrane Review as it is considered the best of the case-control study research. Despite this, it is clear that even the best of cycle helmet research is deeply flawed. It was completed before the weaknesses of case-control studies were widely recognised about five years ago. Bicycle helmet research is by no means the only subject area where case-control studies have given misleading results. A major review of research methodologies concluded that case-control studies had yielded results that were either wrong or greatly exaggerated in five out of six subject areas^{xxxv}.

In view of the well-documented population level studies that reveal mass helmet use to be a failed intervention, it is clearly time to move on from cycle helmets as an intervention.

iv) *Financial costs of care for those with lasting brain injuries*

The proposal Appendices 2 and 3 describe the financial costs related to paediatric acquired brain injury: opportunity costs of earnings foregone as well as care costs. These figures are not disputed. However, these are generic, not specifically related to cycling. Cycling is not a substantial cause of serious head injury in any age group, on the contrary, as Section 2.i showed, it is walking that is the great cause of head injury to children. Half of all serious head injuries to children are falls on a level surface or falls on steps.

4. Conclusion

The proposal to make helmets a legal requirement for cycling in the Bailiwick of Jersey, either for children only or all-ages, should not be supported by the States of Jersey. This is in line with informed opinion. Review of the widest range of evidence shows that:

- The risks of normal daily cycling do not justify even the promotion of helmets, let alone laws compelling their use; the fundamental problem in the debate about cycling is misperception of risk;
- Cycling is not a substantial cause of head injury in any age group; walking is the leading cause of serious head injuries in children;
- The medical research cited for the effectiveness of helmets has been superseded by later population-level studies, showing no noticeable overall reduction in head injury rates linked to helmet use; the Cochrane Review research shows ample evidence of confounding; helmet laws thus fail in their basic purpose;
- Enforced helmet laws suppress cycling levels, as does long-term helmet promotion; this harms public health by suppressing active travel;
- Economic modelling shows that the cost to the UK of a helmet law would be in excess of \$400 million. It should be noted that this result is based on measures of helmet effectiveness never seen in reality. In addition, it does not account for the extra road deaths due to people driving instead of cycling, or the opportunity cost of failing to develop a cycling culture.

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Peer reviewer: Malcolm J. Wardlaw.

Profile: The peer reviewer has had various papers and letters published in peer-reviewed journals (bibliography attached). He is a peer reviewer for the *BMJ* and *CMAJ* and has authored a major study of cycling in Scotland for the Scottish Executive. He has been a regular cyclist since the late 1970s. His professional background is in aerodynamic research and financial analysis.

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APPENDIX 2

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APPENDIX 3

Analysis of the 2004 Statement by the BMA's Board of Science and Education

The statement from the BMA's Board of Science and Education included these words:

“In the past year ... 25 (ncb paper) page 44 ... reduce numbers ...”¹

Three statements within this short quotation are untrue.

First, cycling levels did decrease following the introduction of legislation. The evidence is absolutely clear and can be read in the section headed “Numbers of cyclists” in Robinson's 2005 paper (see Reference (vi)).

Second, there was no reduction in the driving age. There was a lowering of the age at which children were allowed to start learning to drive. (see Reference (vi), section headed “Analysis of cycling patterns,” third paragraph).

Third, the Ontario study did not “demonstrate that introduction of helmet legislation did not reduce numbers of children cycling.” The reason for this is that the legislation was never enforced and helmet wearing increased only a little before falling back to pre-law levels.

“This paper² studied the effect of the 1996 child helmet law in Ontario, Canada. The results were based on systematic street-level counts of child cyclists. The authors concluded: ‘Contrary to the findings in Australia, we did not find evidence in our community that the introduction of mandatory helmet legislation had a significant negative impact on children's exposure to cycling.’

Nowhere in the 2001 paper do the authors state, or give any indication, that the law was not enforced, nor do they mention helmet wearing rates. Indeed, as the above quote shows, they compared the (unenforced and soon ignored) Ontario law with the very much enforced Australian helmet law, as if these were comparable situations.

It was at this time that the British Medical Association changed its helmet policy, from opposition to legislation, to support for enforced legislation. The key paper cited in support of this change was the 2001 Macpherson paper. The BMA argued that it was now safe to assume enforced helmet legislation would not deter cycling – on the basis of a single paper relating to an unenforced law...” from Wardlaw (see Reference (xiii))

¹ BMA 2004 cited in Reference (i), page 44

² Macpherson et al. Mandatory helmet legislation and children's exposure to cycling. *Injury Prevention* 2001;7:228-30.

From Sustainable Transport Policy – Consultation Document, page 5

The Sustainable Transport Policy needs to address:

- **Congestion** - a negative impact on the local economy and quality of life
- **Local air/noise pollution** – motor vehicles create air and noise pollution which can be damaging to health and impairs our quality of life
- **Global carbon emissions** – one third of greenhouse gas emissions in Jersey come from road traffic which contributes to global climate change
- **Reduced physical activity** – the dominance of private car use for travel has contributed to a reduction in regular physical activity which can lead to much wider health issues (such as obesity, cardio vascular disease and mental health problems)
- **Access for everyone** – not everyone has their own car or has the use of one, but they still need to travel safely and comfortably
- **Safety** – road safety is an issue for all of us and accidents can be costly for the economy as well as the individual
- **Supporting the economy** – businesses must be allowed to thrive and need an appropriate transport system to support them
- **Oil vulnerability** – oil supplies are unsustainable, prices are increasing and supplies are decreasing
- **Road network** – Rebalancing the needs of all road users to promote and protect sustainable choices

From Sustainable Transport Policy – Consultation Document, page 7

From Sustainable Transport Policy – Consultation Document, page 7

In the future we believe we need to deliver:

- Commuter traffic levels reduced by at least 15% (the same as current levels experienced in school holidays)¹
- A significant shift to more sustainable forms of travel at all times, such as walking, cycling and public transport^{2 3}
- Improved bus services that attract more car users to public transport
- Reduction in greenhouse gas emissions which will contribute to the Island's international commitments regarding climate change in particular the Kyoto Protocol
- A reduction in emissions of other atmospheric transport related pollutants e.g. Nitrogen Dioxide
- Reduction in journey times which will be beneficial to businesses
- A better quality of life for the people of Jersey⁴
- Improved safety for travellers

- Improved health and fitness for Islanders through increased walking and cycling⁵
- Improved awareness of Islanders to think about how they can improve their travel habits and a willingness to play their part
- Provision of opportunities to reduce the need to travel e.g. home working

¹ Cross strategy with 'Health for Life'.

² Supporting programmes like the Environment Department's ECO-ACTIVE initiative.

³ Supporting Health and Social Services' 'Health for Life' Strategy.

⁴ Supporting Health and Social Services' 'Health for Life' Strategy

⁵ Supporting the 'Health for Life' Strategy

Example School Cycling Policy

....School recognises the many positive benefits of pupils cycling to and from school. We therefore look to encourage this form of travel behaviour in as many ways as possible.

Some of the benefits of cycling to school include:

- Improving health through physical activity.
- Establishing positive active travel behaviours.
- Promoting independence and improving safety awareness.
- Reducing congestion, noise and pollution in the community.
- Reducing environmental impact of the journey to school.

To encourage as many pupils to cycle to school as we can, the School will:

- Actively promote cycling as a positive way of travelling.
- Celebrate the achievements of those who choose to cycle to school.
- Provide cycle storage on the school site.
- Provide high quality cycle training to all pupils who wish to participate.

To make cycling to and from school a positive experience for everybody concerned, we expect our pupils to:

- Ride sensibly and safely and to follow the Highway Code.
- Take responsibility for checking that their bicycle is roadworthy and regularly maintained.
- Behave in a manner which shows them and the school in the best possible light and to consider the needs of others when cycling.
- Consider seriously, wearing a cycle helmet.
- Ensure they can be seen by other road users, by using bicycle lights and wearing high-visibility clothing, as appropriate.

For the well-being of our pupils, we expect parents and carers to:

- Encourage their child to take up opportunities to develop their competence and confidence in cycling.
- Provide their child with the appropriate safety equipment such as high-visibility clothing, bicycle lights and cycle helmet as appropriate.
- Ensure that the cycles ridden to school are roadworthy and regularly maintained.

The decision as to whether a child is competent to cycle to and from school safely rests with the parents/carer and the school has no liability for any consequences of that decision. Parents are advised to take out appropriate insurance cover as the school's insurance does not cover loss or damage to bicycles.

APPENDIX 6

From Sustrans website downloaded February 10th, 2010

<http://www.sustrans.org.uk/resources/in-the-news/pupils-cycling-in-wales-triples#top>

Pupils cycling in Wales triples



Thousands of pupils in twenty-four schools across Conwy and Neath Port Talbot have improved their health, reduced their carbon emissions and cut local congestion since becoming involved with Bike It.

Bike It came to Wales in September 2008 and has achieved great results in its first year. Prior to Bike It only 13 per cent of children in Conwy and Neath Port Talbot cycled to school once a week. A year on, this has increased to 39 per cent and the number of children that never cycle to school has almost halved.

This September, Bike It also began operating in Cardiff, where Sustrans hopes to see similar increases in the numbers of children cycling to school.

Bike It Officers work with pupils, parents and staff to help them overcome whatever it is that is preventing them from cycling to school – by organising cycle training and bike maintenance sessions, helping to install new bike sheds, contributing to classroom work and providing information about safe routes to schools.

The average school journey is just three miles, a distance that can easily be done by bike. And, with one in five thirteen-year olds in Wales classified as obese – a comparatively high figure to international levels – the benefits that cycling regularly can bring to children's health cannot be ignored.

The Welsh Assembly Government's Action Plan to boost walking and cycling over the next four years aims to triple the number of children cycling to school. But, Sustrans is concerned that there is no clear indication of how this is to be achieved and it points to how more projects like Bike It are needed. Bike It is perfectly demonstrating how to meet the targets that the Welsh Assembly has set. But now, consistent support is needed for schools across the country in promoting walking and cycling to school.

Bike It is delivered by Sustrans and funded by the Welsh Assembly Government and the cycle industry through the Bike Hub. Locally it is supported by Neath Port Talbot County Borough Council, Conwy County Borough Council and Cardiff Council.

From Roadpeace website – personal testimony

“I brought up my daughter to be a worthwhile member of society. I had always obeyed the law and worked hard and paid my taxes, and carried out my duties as a citizen, but when I needed the state to carry out its duties towards me, it failed. And I am not alone. Countless families have been failed in the same way.

The death of a child is enough to cope with, but I felt that the law then compounded this misery by systematically belittling, demeaning and marginalising me and making me feel irrelevant in the death of my own child. Our shocking reality is denied and a life sentence of unresolved anguish is imposed on the bereaved.

Road deaths are not ‘accidents’ – unavoidable, unforeseeable, inevitable, unpreventable sequences of events, they have causes and they are all avoidable. In the case of my daughter’s death, I did my own analysis of what happened, and what needed to be done about it. I then bought shares in the company, which owned the cement lorry and went to their Annual General Meeting to speak about my experience and my suggestions for action. They agreed to work with me and since then I have been involved in various training initiatives for their drivers, and trials are underway on a number of adaptations to the vehicles, improvements which are also being adopted by other companies.

So I know for a fact from my own experience that a lot can be done to reduce the incidence of road deaths. But the institutions of the state seem to refuse to take a rational look at what needs to be done, they persist in viewing the events through the use of the word ‘accident’ and pretend that the problem does not really exist. The law, instead of making people responsible for their actions, is allowing them to pretend that they are not. We are all road users, whether as drivers, cyclists, motorcyclists or pedestrians. For our own sakes and for the sake of our children we all need the roads to be safe, and we are entitled to expect that all branches of the law will play their part in enforcing that principle.

Cynthia Barlow, mother”

RoadPeace, UK’s national charity for bereaved and injured road crash victims, was set up in February 1992 to meet the overwhelming need for a national organisation to represent and support this huge group of victims and draw attention to their rights.

Our Mission

“Our aim is to support and empower road traffic victims, to monitor the quality of the services they receive, and to stop future generations from becoming victims”.