

## Child Safety in the UK

### Part I

#### Introduction

Even though the United Kingdom has the best overall road safety record in the EU, its performance in terms of protection of vulnerable road users, particularly cyclists and pedestrians, is less satisfactory.

Children represent a highly vulnerable group. Evidence suggests that child pedestrian and cycling accidents peak in the early years of secondary school when children begin to go to school unassisted.<sup>1</sup>

The main reason people do not walk or cycle more often is fear of being hit by a car.<sup>2</sup> This can have potentially harmful effects as traffic becomes heavier and health problems caused by a more sedentary life increase.

It must be stressed that the promotion of cycling and walking and the provision of better protection for cyclists and pedestrians, particularly children, are interrelated issues and cannot be thought of independently.

#### Child pedestrians

The number of children killed or seriously injured in Great Britain in 2004 was 3,905. Of those, 2,339 were pedestrians.<sup>3</sup> Speed still plays a major role. In residential areas where car speeds have been reduced from 30 to 20 mph, child pedestrian casualties have fallen by 70%.<sup>4</sup>



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The picture is grimmer when income is taken into account.

According to estimates, child pedestrians from poorer households are five times more likely to be killed or seriously injured in road crashes than their richer counterparts.<sup>5</sup> Why? A higher proportion of them live and walk beside main roads with fast traffic: 67% of the poorest households have no access to a car compared to only 6% of the richest.<sup>6</sup>

Disabled children are also particularly vulnerable and highly exposed to the dangers of speeding vehicles. For instance, evidence suggests that children with hearing and vision impairments are at greater risk of being involved in a road accident. Children with Attention Deficit Hyperactivity Disorder (ADHD) have also been found to be over-represented

in pedestrian accidents. Children with physical disabilities may not be able to move as quickly as others and therefore may take longer to cross a road.<sup>7</sup>

Parents' fear of speeding traffic is leading to a generation of kids growing up deprived of the social and physical freedoms essential to normal development. This contributes to children becoming obese, and sedentary children are likely to become sedentary adults. Heart disease, diabetes, brittle bones and other health-related problems will cost the Health Service far more than the traffic calming that would turn dangerous streets into zones where children could walk safely.<sup>8</sup>

#### VOICE : Vulnerable Road User Organisations in cooperation across Europe

VOICE is a network to ensure that usually neglected VOICES are heard in the transport debate – those of vulnerable road users.

#### The VOICE coalition currently consists of:

AGE - the European Older People's Platform; ANEC - the European consumer voice in standardisation; EPHA Environment Network European Child Safety Alliance; European Disability Forum European Public Health Alliance; European Federation for Transport and Environment; European Transport Safety Council

More information: [www.etsc.be/Voice.php](http://www.etsc.be/Voice.php)

#### Child cyclists and helmet use

There exists a considerable amount of scientific evidence which demonstrates that bicycle helmets are effective at reducing the incidence and severity of head, brain and upper facial injury, and two European standards exist for them: EN 1078 (helmets for pedal cyclists and users of skateboards and roller skates) and EN1080 (impact protection helmets for young children).<sup>9</sup> They have been found to help reduce injury for users of all ages, though particularly for children.<sup>10</sup> Indeed, wearing helmets among child cyclists involved in crashes reduce their incidence of head injury by 63% and of loss of consciousness by 86%.<sup>11</sup>

Surveys show that cycling helmet wearing rates have been rising over the past few years - from 16% in 1999 to 25% in 2002 - but not in a uniform way. Helmet wearing rates on major built-up roads have increased by 3.3% between 1999 and 2002 whereas in minor built-up roads only a 1.3% increase has been registered.<sup>12</sup> Nevertheless, this increased wearing rate has been largely due to an increase in the number of adults wearing cycle helmets rather than children, even though most educational campaigns have been directed at children.<sup>13</sup> Some of the factors affecting helmet wearing rates seem to be age, sex, type of bike, weather, time of day, location and so on.

It should be noted, however, that the overall helmet wearing rates in the United Kingdom remain low. Cycle helmet use is not compulsory and authorities fear that mandatory use may lead to decreased bicycle use. Barriers to helmet use include, for instance, age (teenagers are less likely to wear a helmet), social background (lower income and educational level), and geographical factors (possibly associated with different levels of helmet promotion).<sup>14</sup>

### Traffic calming and speed reduction measures

The 30 mph limit for built up areas is the most common of British national speed limits although support for lower speed limits has increased over the past decade. A pedestrian knocked down by a vehicle travelling at 40 mph has only a 5% chance of surviving; at 30 mph it is 45%, but at 20 mph the chances of surviving rise to 95%.<sup>15</sup>

What are your chances of surviving a collision if you are struck by a car while walking or cycling?			
Vehicle Speed	% chances of Surviving	% of vehicles exceeding that speed in built-up areas	
		Cars	Heavy Goods Vehicles
20 mph (app. 32km/h)	95	95	91
30 mph (app. 48km/h)	45	72	55
40 mph (app. 65km/h)	5	12	5

Source: Parliamentary Advisory Council on Transport Safety (1996) *Taking Action on Speeding*

Many parents feel concerned about traffic danger and as a result do not allow their children to walk or cycle to school. Approximately 20% of peak hour congestion is due to parents driving children to and from school. In this context of an ever increasing number of vehicles on the roads, it is not surprising that walking and cycling are in steady decline. The number of walking and cycling trips both fell by 20 % between 1992-1994 and 2002-2003. Walking now accounts for less than a quarter of all trips made in Great Britain. The fall in bicycle use has taken place despite a rise in the number of people owning bicycles.<sup>16</sup> This is due to an increase in the use of cars.

It is true that an improvement of driver attitude to lower speeds and a more strict enforcement may be leading to the growing compliance with the 30mph limit.<sup>17</sup> However, a 20 mph limit in residential areas could still prevent 70% of accidents involving children.<sup>18</sup> A combination of speed reduction measures such as speed cameras and traffic calming – road narrowings, chicanes and road humps, road signs and so on - can prove to be effective in achieving this.

### Road safety education

Information, education and practical training are important in the acquisition of the attitudes, skills and knowledge necessary for a safe road use, both as driver and as a vulnerable road user, from childhood through to old age.<sup>19</sup>

Although the UK has a good record in terms of campaigns and initiatives which aim at encouraging children to walk or cycle to school, road safety education is not an integral part of the National Curriculum. Despite the fact that newly qualified teachers need to demonstrate a familiarity with topics ranging from general safety issues to emotional health and wellbeing;<sup>20</sup> not much emphasis seems to be placed on road safety education.

Recent studies indicate that child pedestrian and cycling accidents are highest in the early years of secondary school, at around the age of 12.<sup>21</sup> This corresponds to a period in which children, most of whom lack the experience of coping with traffic, begin to go to school unassisted. According to a survey commissioned by the Department for Transport<sup>22</sup> few materials for this age group placed any emphasis on the transfer from primary to secondary school. Concerning children with disabilities, the few existing available resources are neither systematically evaluated nor well publicised.<sup>23</sup> These are therefore areas in which road safety education could be improved.



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## Part II

### What works best? Examples from Europe and beyond

A number of countries across Europe (including the UK) and beyond have taken measures to increase protection of vulnerable road users to varying degrees. Many have been successful in decreasing casualties through a combination of engineering or infrastructure measures, law enforcement, and education – including awareness raising campaigns. The examples presented below illustrate initiatives taken by other countries to tackle similar problems to those the United Kingdom is currently facing and could therefore serve as a tool kit of measures that could be better implemented in the country.

## Speed limits

Some countries in Europe have imposed a speed limit of 30 km/h (20 mph) as well as traffic calming measures in many residential and school areas:

In **BELGIUM** the cities of Gent, Mons and Kortrijk have developed large "Zone 30" areas and all areas around schools were to be made "Zone 30" as of 1 September 2005. In **FRANCE**, "Zone 30" areas are developing in most city centres. In **POLAND**, the cities of Krakow, Gdansk and Warsaw have implemented "Zone 30" in some parts of the urban perimeter. In **SLOVENIA**, the systematic implementation of "Zone 30" in residential areas is taking shape. In **CYPRUS**, traffic calming measures (mainly road humps) have been introduced in the recent years: these measures were implemented mainly outside schools but also on trunk roads through villages and in locations where high speeds coupled with the crossing of vulnerable road users.<sup>24</sup> In **HUNGARY**, "Zone 30" areas (coupled with the use of road humps) have started to be very common in the city centres.

A few countries in particular have achieved tangible results in reducing casualties:

In **DENMARK**, the EMIL project showed that traffic calming can lead to speed reductions of 5-40 per cent with an average reduction of 10 km/h.<sup>25</sup> In **THE NETHERLANDS**, 30km/h zones generated a 22 per cent reduction in personal injury crashes.<sup>26</sup>

In the **UK** itself, a few noteworthy initiatives in Hull and London to reduce speed could serve as an example to the rest of the country:

**HULL CITY COUNCIL** has reduced overall injuries by 60% in its 20mph zones. Child pedestrian injuries have been reduced by 75%.<sup>27</sup>

A review of existing 20 mph zones in **LONDON** boroughs revealed that "20 mph would be suitable for implementation over the majority of the boroughs' road network and if installed would have the potential to make large casualty savings"<sup>28</sup>A significant reduction in casualties would mean less of a burden on the health system and could deliver savings amounting to millions of pounds.<sup>29</sup>

The UK Commission for Integrated Transport did a study in 2001 looking at best practice in transport across Europe. It found that where cities have 20mph limits covering between 65% and 85% of the urban network, they are transformed from being noisy, polluted places into cleaner, safer environments.<sup>30</sup> In other words, this would mean safer streets for pedestrians and cyclists.

## Road safety education

Some countries have specific curricula and timetables for road safety education at school with a view to providing children with essential information on how to behave as pedestrians, cyclists and, in certain cases, future drivers. Malta, for example, has created interactive games for children and has organised school visits by safety professionals. In France, a certificate of first education to road safety is given at school and is required before beginning the training in a driving school. Hungary dedicates part of the National Education Programme to road safety education. A major weakness is that traffic education is very often not a part of vocational training for teachers and Kindergarten staff.

## National campaigns

In the **UK**, the number of initiatives to encourage children to walk or cycle more often has been on the rise. The Department for Transport supports a variety of projects such as "[The Safe Routes to Schools](http://www.saferoutestoschools.org.uk)", coordinated by Sustrans ([www.saferoutestoschools.org.uk](http://www.saferoutestoschools.org.uk)); "[Bike for all](http://www.bikeforall.net)" ([www.bikeforall.net](http://www.bikeforall.net)), a joint initiative of the Bicycle Association and the Department for Transport via the National Cycling Strategy Board; "[Think!](http://www.thinkroadsafety.gov.uk)" ([www.thinkroadsafety.gov.uk](http://www.thinkroadsafety.gov.uk)); "[Neighbourhood Road Safety Initiative](http://www.nrsi.org.uk)" ([www.nrsi.org.uk](http://www.nrsi.org.uk)); and [National Cycling Strategy Board](http://www.nationalcyclingstrategy.org.uk) ([www.nationalcyclingstrategy.org.uk](http://www.nationalcyclingstrategy.org.uk)). Other initiatives include: "[Walk to School](http://www.livingstreets.org.uk)" and "[Walkability Project](http://www.livingstreets.org.uk)", both of which are promoted by Living Streets ([www.livingstreets.org.uk](http://www.livingstreets.org.uk)), and "[Road Safety Week](http://www.roadsafetyweek.org.uk)", run by Brake ([www.roadsafetyweek.org.uk](http://www.roadsafetyweek.org.uk)).

## Cycle helmets

The use of cycle helmets is encouraged across the EU Member States and there is legislation requiring their use in several countries including Malta, Spain, Slovenia, Czech Republic and Sweden.

Bicycle helmets have become mandatory in Malta in April 2004 with a law also mandating the use of retroreflective clothes. The new rule seems to have been accepted by cyclists even if the compliance rate has not been checked yet. Cycle helmets are compulsory in Spain outside urban areas. Retroreflective equipment is also compulsory at night outside urban areas. For the time being, no compliance information is available. In Slovenia and the Czech Republic cycle helmets are compulsory for children up to 15 years of age.<sup>31</sup>

All measures necessary need to be applied in order to increase helmet use. The use of cycle helmets can be promoted by awareness raising campaigns and by making their design more attractive. In the Czech Republic, for instance, cycle helmets are promoted in school.<sup>32</sup> Moreover, reducing the costs of helmets through discounts and give-away programmes further facilitates uptake and use.<sup>33</sup> Educating children and adults alike about the benefits associated with wearing a helmet is a key to reducing resistance to it.

In Australia, New Zealand and Canada, legislation was not introduced until high levels of helmet wearing were attained in the population.<sup>34</sup> In the state of Victoria, Australia, a new law requiring helmets in 1990 increased the use of helmets

from 31% to 75% within one year and was associated with a 51% reduction in head injuries to cyclists.<sup>35</sup>



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## Part III

### All actors contributing

The examples of what has worked in various locations illustrates mainly what local authorities can do to improve the protection of vulnerable road users. But national and European decision makers also have a role to play.

At a national level, the government must ensure the frameworks they establish for more local action support and stimulate the spread of initiatives that have been successful. Additionally the legislative framework for transport policy in general needs to be strengthened. Establishing a legal framework which addresses those factors that raise road risk as a priority needs to be the focus of government action rather than an afterthought. This means the legislation that establishes traffic law and the related sanctions needs to be framed so as to target the factors that most increase road risk. In the UK, the two areas that specifically need to be strengthened are a lowering of the permissible BAC and the sanctions applicable for exceeding urban speed limits – the practice that most endangers vulnerable road users.

### Measures to protect vulnerable road users at EU level

In 2001, the Commission proposed an ambitious target to halve the number of road fatalities by 2010 (White Paper on the European Policy for Transport, 2001). In order to pave the way towards achieving this target, the Commission subsequently published a European Road Safety Action Programme (COM (2003) 311 final). It stressed the need for better protection of vulnerable road users. In particular, it highlighted the relevance of education and awareness campaigns aimed at vulnerable road users and the importance of the tests conducted by EuroNCAP (European New Car Assessment Programme) regarding passive safety, which concerns protection against injury in the event of a crash.

Safer car fronts for pedestrians and cyclists are a priority to EU action. Mindful of the fact that every year some 8,000 pedestrians and cyclists are killed and a further 300,000 injured on European roads, the Parliament and Council adopted a Directive (2003/102/EC) which aims to reduce the severity of injuries to pedestrians by laying down tests and to introduce changes to the front of vehicles, concentrating essentially on the bonnet and bumper. These could help prevent up to 2,000 pedestrian fatalities a year. European, Japanese and Korean car manufacturers have already agreed to produce vehicles complying with these provisions and to introduce a range of other safety measures, which will reduce the risk of serious or fatal injuries to pedestrians. The second stage of this Directive is to be reviewed and all involved must ensure that the standards eventually adopted give the protection of vulnerable road users the highest priority.



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