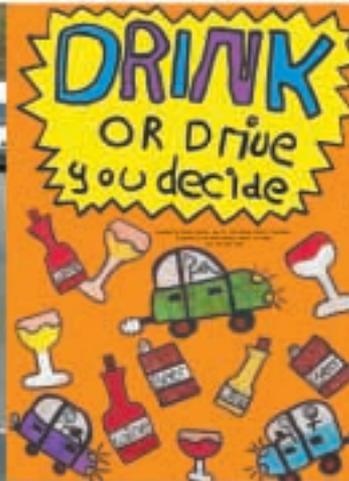




Llywodraeth Cynulliad Cymru
Welsh Assembly Government

Road Safety Strategy for Wales



January 2003

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Members of the Road Safety Strategy Board

Front cover:

20mph sign – courtesy of Vale of Glamorgan Council
Children crossing the road – courtesy of Conwy County Borough Council
Drink or Drive You Decide – courtesy of Road Safety Council of Wales
Children Cycling – courtesy of City and County of Cardiff

Chapter 2

30mph gateway, Gwersyllt – courtesy of Wrexham County Borough Council

Chapter 3

A458, Foel - courtesy of Powys County Council

Chapter 4

Safe Routes to School project at Newtown – courtesy of Powys County Council
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Chapter 6

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Magor Village home zone – courtesy of Department for Transport

Chapter 7

Horse riders - courtesy of Department for Transport

Chapter 8

Driver and mobile phone – courtesy of Carmarthenshire County Council
Breathalyser - courtesy of Carmarthenshire County Council
Mega Drive – courtesy of Capita Gwent Consultancy

Chapter 9

Motorcyclist – courtesy of Capita Gwent Consultancy

Road Safety Strategy for Wales

January 2003

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Foreword

By Sue Essex AM Minister for Environment



The issue of safety on our roads and in our communities affects us all. Almost all Welsh citizens are road users on a daily basis – whether on foot, on a bicycle, in a car, on a bus, on a motorcycle or on a horse.

Despite a reduction in the number of casualties in the last few years, road safety statistics in Wales make grim reading. In the year 2000, 1,823 people were killed or seriously injured and a further 12,319 were slightly hurt. Road collisions and casualties are costly to all of us as

taxpayers. However, no monetary figure can ever compensate for the death of a loved one.

The "problem" of road safety is not simply a question of the number of collisions and the resulting casualties. Pedestrians, cyclists and horse riders often perceive Welsh roads as dangerous places to travel. The long-term decline in the number of children walking and cycling to school is just one indicator of this.

For far too long, road safety has been seen as someone else's problem. Quite often, it is said that a section of road is "dangerous". However, this implies that a collision is "caused" by the road when, in reality, it is **the road user** that is ultimately responsible.

As road users, each and every one of us is responsible for our own safety and that of others. Our behaviour on the road means that we are all part of the road safety problem and solution. The purpose of this strategy is to ensure that everyone, either as individuals or organisations, plays a part in implementing the actions needed to improve safety on our roads.

A handwritten signature in blue ink that reads "Sue Essex". The signature is written in a cursive, flowing style.

Sue Essex AM
Minister for Environment

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1. Road Safety in Wales¹

A Vision for Road Safety

1.1 The vision for this strategy is to reduce real and perceived danger for all road and footway users in Wales in order to promote safe and sustainable access.

1.2 Our *Transport Framework for Wales* has outlined three strategic aims:

- sustainable development;
- tackling social disadvantage;
- promoting equal opportunities.

1.3 Road safety is core to these three aims by:

- **supporting sustainable development** through improving safety for pedestrians and cyclists which will remove barriers to the greater use of these modes for the many short trips that are currently undertaken by car.
- **tackling social disadvantage** by recognising that the poorest members of society have higher casualty rates. Improving safety for these people will be a priority.
- **meeting equal opportunity** obligations by recognising that people who do not have regular access to a private car – such as women, children and ethnic minorities - need to be able to travel safely to a wide range of destinations on foot, by bike or on public transport.

We are all part of the problem and the solution

1.4 For far too long, road safety has been seen by the public as someone else's problem. Quite often, it is said that a section of road is "dangerous". However, this implies that a collision is "caused" by the road when, in reality, it is the **road user** that is ultimately responsible.

1.5 As road users, each and every one of us is responsible for our own safety and that of others. Our behaviour on the road means that we are all part of the road safety problem and solution. The purpose of this strategy is to ensure that everyone, either as individuals or organisations, plays a part in implementing the actions needed to improve safety on our roads. This involves working in partnership, with the main partners being:

- the Welsh Assembly Government;
- the UK government and its executive agencies;
- local authorities;
- the Police;
- road safety organisations and groups;
- cycling, walking and horse riding interest groups;
- community councils and local community groups;
- motoring organisations;
- employers; and most importantly
- individual users

1.6 An emerging spirit of partnership is already evident from the consultation on the *Safe Roads, Safe Communities* document in 2001. A diverse range of organisations made some excellent contributions to the road safety debate and many of the comments and ideas put forward are reflected in this strategy.

1.7 There is an urgent need to change the culture of travel on our roads. All road users must respect the right of others to travel in safety. Where at all possible, the "barrier culture" of isolating different groups of road users from each other must be tackled. Roads are not solely motor vehicle traffic arteries.

The Targets

1.8 In its road safety strategy², the UK government published three casualty reduction targets. From a baseline of the average number of casualties between 1994 and 1998, the targets to be achieved by the year 2010 are:

- 40% reduction in the total number of Killed or Seriously Injured (KSI) casualties;
- 50% reduction in the total number of child Killed or Seriously Injured (KSI) casualties;
- 10% reduction in the rate of slight casualties per 100 million vehicle kilometres travelled.

1.9 In Wales the baseline (1994-98) average number of casualties is:

- 2008 KSI casualties;
- 289 child KSI casualties;
- 53 slight casualties per 100 million vehicle kilometres³

1.10 The numerical casualty reduction targets for Wales for 2010 are therefore:

- 1205 KSI casualties – **a reduction of 803;**
- 145 child KSI casualties – **a reduction of 144.**
- 48 slight casualties per 100 million vehicle kilometres.

Reducing Road Danger

1.11 At the same time as meeting the targets, there is a need to reduce perceived road danger and exposure to risk of currently "vulnerable" road users such as pedestrians, cyclists, motorcyclists and horse riders. We are developing a strategy to promote a significant increase in the use of these forms of transport whilst reducing casualty numbers. Meeting casualty reduction targets by reducing the use of these forms of transport is not an option.

1.12 Meeting these targets whilst increasing the use of non-car forms of transport will require a great deal of commitment from all partners. In this document we outline the practical actions and resources required to meet the targets and reduce road danger. People from all sections of society have a part to play.

1.13 A number of key themes are highlighted throughout this strategy:

- Consistency of approach across Wales – in terms of engineering, education and enforcement measures.
- A requirement for better data, analysis and research.

- Delivery of practical actions through targeted funding.
- Integrating road safety with other policy areas.

Joint Working with Other Policy Areas

1.14 The Welsh Assembly Government's *Plan for Wales* contains a series of commitments to address problems in different policy areas through joint working in order to ensure that different initiatives work towards common objectives. Improvements in both the perception and reality of road safety will benefit many other policy areas:

- **Sustainable Community Development:** The Assembly Government's sustainable communities policy will be assisted by the reduction of road casualties – especially in socially deprived areas. In particular, the following initiatives are relevant:
 - *New Communities Strategy:* local authorities are legally obliged to prepare community strategies that will promote the economic, environmental and social well-being of their areas that will lead to sustainable development in the UK.
 - *Communities First:* a practical programme (backed up with new funding) designed to enable communities to develop partnerships and pursue sustainable development and tackle social disadvantage at a local level.
- **Health:** *Well Being in Wales*, the follow up to *Better Health Better Wales*, published for consultation in September 2002, reinforces the Assembly's commitment to the integrated approach to policies and programmes. It provides an overarching framework for crosscutting action to address priorities. It provides the strategic context for Local Health, Social Care and Well Being strategies that local authorities and Local Health Boards have a joint duty to produce by April 2003. It highlights the links between transport, health and well being by recognising that people need access to transport for jobs, education, shops and leisure as well as health facilities. It recognises the need to promote cycling and walking to combat the increase in sedentary lifestyles and the effects that has on risks of heart disease.⁴
- **Environment:** In addition to air quality benefits, reducing speed and managing traffic will assist with the reduction of Carbon Dioxide emissions and noise.
- **Social Inclusion:** Socially deprived areas have poorer pedestrian safety records. Communities that are not dominated by traffic will encourage additional travel to employment, shopping, leisure and social activities by those people who do not have regular access to a car. More walking and cycling will result in more social interaction between people in communities.
- **Community Safety and the Fear of Crime:** Excessive speed and illegal operation of vehicles are criminal offences that compromise the safety of all other road users. Reduction in vehicle-related crime would improve both the perception and reality of road safety. An increase in walking and cycling would lead to more people on the streets that could act as a deterrent to crime. Local authorities have published Community Safety Strategies – though not all of them include road safety as a specific topic. This is something that could be addressed in future.

- **Education:** The traditional view limits the role of education to educating children to appreciate the dangers on the roads. In recent years, education has been used to positively promote the benefits of travel by modes other than the private car for all groups in society. There is also research claiming that the use of modes such as walking and cycling actually boosts the academic performance of some children.
- **Economy:** The economic cost of collisions and casualties puts severe pressure on the Police and the National Health Service. Reducing collisions and casualties has a measurable economic benefit (that has been traditionally expressed as a "rate of return" on the cost of safety schemes). Increasing the use of alternatives to the private car will help to reduce congestion and its associated economic costs and regenerate urban areas that have been blighted by over provision for the car. In rural areas in particular, improving safety will generate sustainable tourism via walking, cycling and horse riding.

Links to the UK Government Strategy

1.15 The UK government's road safety strategy contains a range of measures that will be introduced between now and 2010. In the consultation on this strategy, a number of suggestions were made that can only be addressed by additional research and primary legislation at a UK-wide level. Examples include:

- Changes to the drink-drive limit.
- Changes to speed limits of different classifications of road.
- A change in the law to make driving whilst using a mobile telephone a specific offence.

1.16 This strategy focuses on issues that can be addressed directly, in practical and legal terms, by the Assembly Government and its partners – local authorities and the Police. We will implement and promote any future changes to UK legislation.

1.17 We play an active part in discussions regarding national road safety initiatives – in particular as part of the Road Safety Advisory Panel. This implementation strategy will give priorities for Wales a much clearer focus during national discussions. The safety camera "netting off" project is an example of how a UK pilot scheme has, through active discussion and evaluation, been rolled out throughout Wales.

The Strategy

1.18 The strategy should be treated as guidance to professionals in the road safety policy area. The strategy is also of particular relevance to professionals in other policy areas. In particular, people working in the fields of transportation, education, community development, health, youth policy, crime prevention, economic regeneration and tourism should appreciate that there will be many possibilities for joint working – either at national or local level – on projects that promote road safety as part of wider initiatives. The Assembly Government is keen to explore the possibilities of additional joint working on a long-term basis. It can also be used as a reference document to inform and support organisations, local communities and individuals who have an interest in promoting road safety.

Action Programme

1.19 The action programme and target implementation date contained in the strategy are summarised below:

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Review current institutional arrangements and make recommendations on a revised structure.	Welsh Assembly Government WATO	✓	
Set up Welsh Road Safety Forum	Welsh Assembly Government RoSCoW RoSPA Local Authorities Police Health Sector	✓	
Set up a 'Road Safety Wales' web site to provide a one-stop source information on practical road safety projects in Wales, road safety statistics, local road safety strategies, research reports and links to other road safety sites.	Welsh Assembly Government	✓	
Produce an annual report on road safety initiatives.	Welsh Road Safety Forum	✓	
Produce a local road safety strategy in consultation with local communities.	Local Authorities	✓	
Produce an annual progress report on road safety spending – linked to casualty reduction and prevention.	Local Authorities	✓	
Consider appointment of staff to implement road safety projects strategy at a local level.	Local Authorities	✓	
Provide opportunities for staff training and development in road safety.	Local Authorities		✓

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Establish a dedicated research budget of £100,000 per annum.	Welsh Assembly Government	✓	
Explore the potential for the collection of collision and casualty data from hospitals and insurance company records and other sources.	Welsh Assembly Government Local Authorities NHS Trusts	✓	
Examine the feasibility of monitoring and publishing casualty rates based on the amount of travel by other modes.	Welsh Assembly Government Local Authorities		✓
Establish an urban "road hierarchy" based on a detailed assessment of movements and desire lines of all road users as part of Local Transport Plans and Unitary Development Plans.	Local Authorities	✓	
Local safety strategies should use the area wide and route action approaches as an integral part of their casualty reduction plans.	Local Authorities	✓	
All local authority road safety strategies should feature a broad range of safety scheme assessment criteria based on local priorities and consultation with communities.	Local Authorities	✓	
Routinely undertake speed surveys in response to problems highlighted by local communities.	Local Authorities Welsh Assembly Government	✓	
Address community concerns through community regeneration projects (such as Communities First) and local road safety forums.	Local Authorities Welsh Assembly Government	✓	
Consider the use of an urban road user hierarchy to be used for planning and implementing transport and land-use schemes.	Local Authorities	✓	

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Research the links between child pedestrian casualties and social deprivation and the causes of collisions.	Welsh Assembly Government	✓	
Identify and implement road safety projects in deprived areas (based on the results of the study).	Welsh Assembly Government Local Authorities	✓	
Research study of child casualty patterns focussing on journey purpose.	Welsh Assembly Government	✓	
Continue financial support for Safe Routes to School schemes subject to satisfactory monitoring and evaluation of results.	Welsh Assembly Government Local Authorities		✓
Establish database of good practice for school travel and road safety initiatives.	Welsh Assembly Government	✓	
Provide assistance to schools on the production of Travel Plans.	Travel Plan Co-ordinators	✓	
Review road safety education to assess emphasis on practical skills.	Local Authorities Welsh Assembly Government	✓	
Set clear objectives for the provision of road safety education based on skills required by child pedestrians and cyclists.	Local Authorities	✓	
Issue guidance on skills-based road safety projects.	Welsh Assembly Government	✓	
Establish Childrens' Traffic Clubs throughout Wales.	Local Authorities	✓	
Develop targeted action for teaching road safety to young people that will: <ul style="list-style-type: none"> Assess what is currently being taught. Identify good practice (especially subjects and methods that pupils find interesting). Consult teachers on the resources that they believe they require. 	Welsh Assembly Government Local Authorities Head Teachers School Governors Teaching Unions		✓

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
<ul style="list-style-type: none"> Review and improve resources available to teachers. Evaluate the results of road safety education through a survey of pupils. 			
Monitor Child Pedestrian Training Co-ordinator initiative.	Welsh Assembly Government	✓	
Make the basic cycle proficiency course more widely available in schools.	Local Authorities	✓	
Undertake safety publicity campaigns using youth culture to tackle the peer pressure problem.	Welsh Assembly Government		✓
Promote on-road cycle skills courses.	Welsh Assembly Government Local Authorities Youth Clubs and youth organisations	✓	
Undertake Child Road Safety Audits.	Local Authorities Welsh Assembly Government	✓	
Consider the provision of additional training for road safety professionals on child safety issues and audit procedures.	Local Authorities	✓	
Ensure that all transport policies and strategies are audited for their impact on children.	Local Authorities Welsh Assembly Government		✓
Undertake research into circumstances of motor vehicle collisions involving children.	Welsh Assembly Government NHS Trusts and hospitals Insurance companies	✓	
Implement results of the research through education and enforcement campaigns.	Welsh Assembly Government Police		✓
Define a non-built up road hierarchy in order to develop a speed management strategy that identifies sites and routes for application of speed management measures.	Welsh Assembly Government Local Authorities	✓	

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Continue to apply innovative solutions to sites or routes where a lower speed limit needs to be imposed for safety reasons.	Local Authorities Welsh Assembly Government	✓	
Develop a pilot project to test a range of explanatory signs for use on non-built up roads.	Welsh Assembly Government Local Authorities	✓	
More 20mph zones to be established.	Local Authorities	✓	
Develop a pilot scheme of 20 mph zones using different approaches: <ul style="list-style-type: none"> ▪ Signs only ▪ Gateway features ▪ Traffic calming/road re-allocation 	Welsh Assembly Government Local Authorities	✓	
Ensure that 20mph is the normal speed in new residential developments unless there are exceptional circumstances.	Local Authorities	✓	
Review speed limit signing, especially at gateways.	Local Authorities Welsh Assembly Government	✓	
Consider the introduction of signing and environmental design measures in built up areas as complementary measures in order to give a consistent message to drivers.	Local Authorities	✓	
Undertake publicity campaigns to highlight the justification for particular safety schemes and their benefits.	Local Authorities Welsh Assembly Government	✓	
Investigate more general community concerns regarding excessive speed and produce a speed management education strategy that will support all engineering and enforcement schemes.	Local Authorities Welsh Assembly Government	✓	
Ensure that information on speed management issues and benefits are provided on the road safety Wales website.	Welsh Assembly Government	✓	

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Study of elderly and mobility impaired pedestrian casualties to identify common trends and possible contributory factors.	Welsh Assembly Government Disability Groups	✓	
Consider elderly and mobility impaired pedestrians' needs within local road safety strategies.	Local Authorities	✓	
Develop a national publicity campaign to highlight the needs of elderly and mobility impaired pedestrians.	Welsh Assembly Government		✓
Allocation of adequate funding to repair and maintain footways.	Local Authorities Welsh Assembly Government	✓	
Develop practical on-road cycle training courses for young people and adults.	Welsh Assembly Government Local Authorities Cycle User Groups	✓	
Consider the implementation of practical cycle training courses as part of company and school travel plans.	Travel Plan Co-ordinators Local Authorities Employers Schools		✓
Consider how collisions and crashes on off-road cycle paths could be monitored and reported.	Local Authorities Local Cycling Groups Hospitals	✓	
Consider the provision of safe and convenient cycle and pedestrian facilities as part of any new highway scheme.	Local Authorities Welsh Assembly Government	✓	
Ensure that safe cycle and pedestrian facilities are incorporated into bypassed routes.	Local Authorities Welsh Assembly Government	✓	
Consult on draft Statutory Guidance and Regulations for Home Zones and Quiet Lanes.	Welsh Assembly Government	✓	
Feature Home Zone information and advice on the new road safety Wales web site.	Welsh Assembly Government	✓	

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Assist local communities and local authorities in the development of Home Zone projects, by providing advice on possible sources of funding from non-transport sources (such as Communities First).	Welsh Assembly Government		✓
Consider adoption of design-guidelines for Home Zones and requirement for developers to follow these designs on suitable roads in new developments as part of the planning process.	Local Authorities		✓
Consider improving the collection of data on horse collisions, casualties and near misses.	Welsh Assembly Government British Horse Society	✓	
Investigate the collection of collision and casualty information relating to horse riders by means other than a Stats19.	Welsh Assembly Government Hospitals	✓	
Develop local publicity and enforcement campaigns in areas where horse collisions and casualties are revealed to be a problem.	Local Authorities Police		✓
Raise drivers' awareness when encountering horse riders through developing a national publicity campaign.	Welsh Assembly Government Local Authorities Wales Tourist Board British Horse Society	✓	
Identify roads that are regularly used by horse riders and implement appropriate signing.	Local Authorities Local Access Fora	✓	
Promote training and testing for horse riders.	Welsh Assembly Government British Horse Society		✓
Undertake a mapping study of Sleep Related Collisions to identify locations and possible road characteristics.	Welsh Assembly Government Local Authorities Police	✓	
Review the provision of serviced rest areas and use of warning signs.	Welsh Assembly Government Local Authorities	✓	

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Raise drivers' awareness of fatigue through targeted publicity campaign.	Welsh Assembly Government Local Authorities Police		✓
Periodically undertake campaigns relating to the use of a mobile phone whilst driving.	Police Welsh Assembly Government	✓	
Continue enforcement throughout the year of drink drive legislation.	Police	✓	
Continue campaigns to highlight the dangers of drinking and driving.	Welsh Assembly Government Local Authorities Police	✓	
Local Crime and Disorder strategies should ensure that measures to target persistent drink-driving offenders are developed.	Local Authorities Police	✓	
Develop a series of publicity campaigns aimed at influencing behaviour using role models from the world of sport, music and theatre.	Welsh Assembly Government		✓
Actively promote the Designated Driver scheme.	Welsh Assembly Government Portman Group	✓	
Undertake a research study of the problem of drug driving in Wales.	Welsh Assembly Government	✓	
Undertake a national publicity campaign to make people aware of the dangers of driving under the influence of drugs.	Welsh Assembly Government	✓	
Consider how to integrate the dangers of drug-driving into existing drug education and rehabilitation initiatives.	Welsh Assembly Government	✓	
Consider how practical pre-driver training programmes can be made more widely available.	Welsh Assembly Government Local Authorities	✓	
Explore the feasibility of reduced premiums for people who successfully complete the Pass Plus training.	Welsh Assembly Government Insurance Companies	✓	

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Undertake a monitoring project to assess the effect of driver training projects on driver behaviour.	Welsh Assembly Government		✓
Freight Quality Partnerships should be actively implemented on either a local or regional basis.	Local Authorities Freight Transport Association Road Haulage Association	✓	
As part of school travel plans, invite hauliers to give presentations to children on issues related to HGVs.	Local Authorities Schools Haulage companies	✓	
Produce official statistics to show separate collision and casualty figures for taxis.	Welsh Assembly Government	✓	
Explore the adoption of a national code of conduct for taxi drivers and operators.	Welsh Assembly Government Local Authorities Taxi operators		✓
Promote advanced driver training as part of company travel plans and amongst employees of public authorities.	Local Authorities	✓	
Establish a register of organisations that promote advanced driver training courses and publicise these on the road safety Wales website.	Welsh Assembly Government	✓	
In conjunction with insurance companies, investigate the promotion of financial incentives following the advanced driving test and other training courses.	Welsh Assembly Government Insurance Companies	✓	
Plan to complete an average of 20 local safety schemes every year or as may be required up to 2010.	Welsh Assembly Government	✓	✓
Develop and implement practical schemes to make better use of the M4 motorway and A470, A494 and A550 Trunk Roads.	Welsh Assembly Government	✓	
Undertake a sample survey of road marking reflectivity.	Local Authorities Welsh Assembly Government	✓	

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
A review of the existing signing should be undertaken by highway authorities.	Welsh Assembly Government Local Authorities	✓	
Study of motorcyclist collisions and casualties in rural and urban areas in consultation with user groups.	Welsh Assembly Government Welsh Road Safety Forum Local Authorities NHS Trusts	✓	
Produce Welsh Strategy for motorcycling.	Welsh Transport Forum Welsh Assembly Government	✓	
Promote high visibility clothing.	Motorcycle groups Retailers	✓	
Develop road user awareness publicity campaign in urban areas.	Welsh Assembly Government		✓
Continue promotion of <i>Bike Safe Cymru</i> .	Police forces Motorcycle groups Employers	✓	
Set up and promote an approved training scheme register.	Police forces Welsh Assembly Government Motorcycle groups	✓	
Liaison with insurance companies to explore the promotion of discounts on premiums for riders who undertake additional training.	Welsh Assembly Government Insurance Companies		✓
Safety audits should consider the impact on motorcyclists as a distinct user group.	Local Authorities Welsh Assembly Government	✓	

1. Throughout this document, road traffic accidents are referred to as "collisions". We believe that the term "accident", though well understood by road safety professionals, is inappropriate as it conveys the impression that road casualties are brought about by circumstances outside human control. In fact, the vast majority of collisions are the result of human error and are therefore not accidents in the true sense of the word.
2. Tomorrow's Roads – Safer for Everyone (Department of Environment, Transport and the Regions, March 2000). Available at <http://www.dft.gov.uk/>
3. The 1994-98 baseline average is based on provisional estimates of travel data.
4. <http://www.wales.gov.uk/healthplanonline>

2. Delivering Road Safety Standards in Wales

Introduction

2.1 This chapter describes the roles and responsibilities of the large number of organisations and individuals that are promoting road safety in Wales.

2.2 The Welsh Assembly Government, local authorities and the Police each have responsibility for various aspects of road safety policy and there are a large number of groups and committees that meet to discuss new initiatives on a regular basis. In addition various road safety organisations, most notably the Royal Society for the Prevention of Accidents (RoSPA) and the British Institute of Traffic Education Research (BITER), provide advice and practical support.

2.3 There is currently no one single organisation that acts as a co-ordinating body for all road safety initiatives in Wales. In order to deliver the practical actions required to improve road safety in Wales and meet the casualty reduction targets, there is a need to consider how the current roles and responsibilities can be simplified into a new structure so that resources are put to best use.

Objectives for Delivery

- Clarity on who is responsible for road safety service delivery to the public.
- Identification of the resources required for implementation of the Welsh road safety strategy.
- To explore options for changing the way that the road safety strategy will be implemented.
- To explore how local communities can become more involved in road safety.

Responsibility for Road Safety Policy

The Welsh Assembly Government

2.4 We are now promoting a variety of road safety policy initiatives:

- We are the Highway Authority for 1,709 kilometres of Motorway and Trunk Road, with responsibility for safety engineering and highway maintenance solutions.
- Since 2000 we have funded **Local Trunk Road Safety Schemes**.
- Since 1999, we have provided Transport Grant funding to local authorities to undertake **Safe Routes to School** schemes in partnership with schools. This initiative has proved to be very popular with parents, teachers and children.
- **Transport Grant (TG)** funding is also provided for local authority transport packages to promote safer public transport, walking and cycling infrastructure. From 2003-04 TG will support safe routes to bus and railway stations and other major trip destinations.

- Since 2000, we have provided local authorities with funding in the form of **Road Safety Special Grant** to address local safety problems.



Table 2.1: Local Trunk Road Safety Schemes Funding Allocations

Financial Year	Grant Allocation (£m)
1999-00	1.6
2000-01	1.2
2001-02	1.2
2002-03	1.5
2003-04	1.5

Table 2.2: Safe Routes To School Funding Allocations

Financial Year	Grant Allocation (£m)
1999-00	0.8
2000-01	1.4
2001-02	2.7
2002-03	2.7
2003-04	3.0

Table 2.3: Road Safety Special Grant Funding Allocations

Financial Year	Grant Allocation (£m)
2000-01	3.662
2001-02	3.038
2002-03	5.078
2003-04	6.000

- We also provide financial support for a number of organisations that promote education, training and publicity resources:
 - British Institute of Traffic Education Research (BITER).
 - Royal Society for the Prevention of Accidents (RoSPA).
 - Road Safety Council of Wales (RoSCoW).

Local Authorities

2.5 The 22 local authorities in Wales are responsible for safety strategies and measures on non-trunk roads which are identified in Local Transport Plans and, in many cases, a Road Safety Plan. Local authorities:

- Undertake detailed analysis of collision and casualty trends in order to develop remedial engineering schemes.
- Implement Safe Routes to School schemes.
- Promote safer walking and cycling through the development of integrated networks.
- Promote road safety education, training and publicity initiatives in schools and communities via Road Safety Officers (RSOs).
- Form partnerships with the Police to undertake enforcement campaigns on speed and other issues.
- Undertake maintenance projects to improve the condition of the road surface.

The Police

2.6 The four Welsh Police forces are responsible for enforcing traffic laws and they assist with some aspects of road safety education. They have signed up to the *Association of Chief Police Officers National Road Policing Strategy*, the aim of which is

"To secure an environment where the individual can use the roads with confidence, free from death, injury, damage or fear."

2.7 The North Wales Police Force have been instrumental in developing a National Road Death Investigation Manual. The Manual was launched nationally in 2001 and seeks to place the investigation of road deaths on a comparable investigative level to other homicides.

2.8 With driver error contributing to the majority of collisions, improving road user behaviour is a priority. Lapses in concentration, errors of judgement and violation of road traffic law contribute to increased risks of collisions and casualties. The Welsh Police Forces seek to improve road user behaviour by means of education and enforcement of road safety, using publicity to highlight enforcement action, the reason for the action and the safety objectives they seek to achieve. The aim is to increase the driver's perception of the risk of being detected and public acceptance of the need for road traffic law enforcement.

2.9 The safety camera "netting off" project now enables the safety partnerships to re-invest money received from fines into additional enforcement measures that aim to tackle casualties that result from excessive and inappropriate speed. In addition, the Police are involved in the following enforcement strategies:

- intelligence led enforcement to target dangerous practices such as mobile phone use, drink-driving, driving on illegal tyres, vehicle overloading and use of unroadworthy vehicles.
- provision of targeted high visibility policing which aims to deter the road user from illegal and unsafe driving and vehicle usage.
- provision of advice and warnings to road users.
- the use of technology and consistent prosecution policies.

Road Safety Groups and Organisations

2.10 There are a number of organisations with responsibilities for, or interests in, road safety in Wales:

- **Royal Society for the Prevention of Accidents (RoSPA¹):** A registered charity seeking to prevent accidents of all types – offering road safety education, promotional and training materials. We currently fund RoSPA to provide road safety promotion projects in Wales.
- **British Institute of Traffic Education Research (BITER):** We fund this non-profit making charity to provide a traffic education advisor post to promote road user education and provide training for road safety personnel.
- The **Welsh Association of Technical Officers (WATO) Traffic and Safety Group** is a forum for engineering representatives of the 22 Local Authorities, the Police and the Assembly Government to discuss and promote road safety engineering solutions and casualty data issues.
- The **Road Safety Council of Wales (RoSCoW²)** performs a similar role for education, training and publicity measures and provides a web site and annual newsletter.
- **Local Community Groups/Councils:** Local communities and their representative Councils have a vital contribution to make to the safety of themselves and others. All safety initiatives require (at the very least) support and (preferably) participation of local communities and their representative groups. Most road safety problems originate at a local level and that is the best place for them to be solved. Schools are also a vital part of this broad group.
- **Road Safety Pressure Groups:** These have been set up to campaign on specific road safety issues and have a vital role to play in ensuring that both government, the media and the general public are made constantly aware of the need to address specific road safety issues and implement solutions. Such groups include BRAKE³, RoadPeace⁴, the Slower Speeds Initiative⁵ and the Campaign Against Drink Driving.⁶
- Four **regional road casualty reduction groups** meet on a regular basis to discuss problems and solutions in their areas based on analysis of collision statistics.
- **Road User Representative Groups/Organisations:** Groups representing users of a particular mode of travel all have a part to play in ensuring that their members actively promote good road safety practice through research, education, publicity and funding. Examples of such groups include:
 - CTC (Cyclists Touring Club)⁷;
 - Sustrans Cymru⁸;

- Living Streets (formally the Pedestrians Association)⁹;
- Automobile Association and Royal Automobile Club¹⁰;
- British Horse Society¹¹;
- Freight Transport Association and Road Haulage Association¹²;
- Motorcycle Action Group¹³.
- British Motorcyclists Federation¹⁴
- Motorcycle Industry Association¹⁵

Strategy

Co-ordination and Implementation

2.11 Joint working will continue to be critical to delivering effective road safety initiatives but there is a need to place this within a clear framework of responsibility. We will therefore undertake a review of the current institutional arrangements and make recommendations that will enable the effective delivery of road safety policy.

2.12 In order to promote a more inclusive approach, we will establish a **Welsh Road Safety Forum** which will advise on road safety policy issues and will help monitor progress towards road safety targets. The forum will:

- Comprise of a broadly based membership, including community representatives and professionals from other policy areas (such as health and education).
- Meet every quarter.
- Establish sub groups to examine individual issues with the ability to co-opt additional members.
- Be supported by a secretariat.
- Promote Good Practice and Information – whilst there are a number of very good publications, initiatives and web sites available, there is no single source of information and guidance for individuals and organisations wishing to learn about road safety initiatives and good practice.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Review current institutional arrangements and make recommendations on a revised structure.	Welsh Assembly Government WATO	✓	
Set up Welsh Road Safety Forum	Welsh Assembly Government RoSCoW RoSPA Local Authorities Police Health Sector	✓	

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Set up a 'Road Safety Wales' web site to provide a one-stop source information on practical road safety projects in Wales, road safety statistics, local road safety strategies, research reports and links to other road safety sites.	Welsh Assembly Government	✓	
Produce an annual report on road safety initiatives.	Welsh Road Safety Forum	✓	

Resources and Organisation

2.13 Local authorities retain the statutory responsibility for the development and implementation of engineering and education road safety solutions in Wales. In exercising these there are a number of actions that local authorities should undertake:

- Produce a **Local Road Safety Strategy** with clear objectives, targets and measures.
- Appoint a **Road Safety Strategy Officer** who would co-ordinate and implement all aspects of the strategy, including:
 - Ensuring that capital spending on road safety projects achieves clear casualty reduction results whilst also promoting safe travel by all modes.
 - Availability of adequate well qualified and motivated staff to deliver all types of road safety projects and to ensure effective liaison with local communities.
 - Producing a strategy document through detailed analysis and consultation.
 - Undertaking of locally based road safety studies.
 - Liaison with other road safety professionals (engineers and Road Safety Officers) and other local authority departments whose strategies will affect road safety – especially planning, community development, health promotion, education and (in particular) highways and transportation.
 - Acting as a contact point between the local authority and local communities (facilitating consultation and participation).
 - Producing funding bids and monitoring the spending of money against progress towards the targets.
 - Undertake evaluation to demonstrate how road safety spending will contribute to casualty reduction targets and increase the use of non-car modes of transport.
- Promotion of road safety qualifications (e.g Diploma in Accident and Safety Management (MANCAT) or the National Vocational Qualifications Levels 3 and 4 in road safety currently offered by the Institution of Highways and Transportation).

2.14 We will continue, subject to outcomes of budget planning rounds, to make financial resources available to local authorities and road safety organisations throughout the duration of the strategy. However, we would expect local authorities to continue to allocate funds from their own budgets for road safety work.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Produce a local road safety strategy in consultation with local communities.	Local Authorities	✓	
Produce an annual progress report on road safety spending – linked to casualty reduction and prevention.	Local Authorities	✓	
Consider appointment of staff to implement road safety projects strategy at a local level.	Local Authorities	✓	
Provide opportunities for staff training and development in road safety.	Local Authorities		✓

Road Safety Research

2.15 At present little in-depth road safety research is carried out specifically on Welsh road safety problems. Such research is essential in order to understand the contributory factors in road collisions and casualties and to target resources at measures that will address these.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Establish a dedicated research budget of £100,000 per annum.	Welsh Assembly Government	✓	

1. See <http://www.rospe.org.uk/>
2. See <http://www.rospe.org.uk/>
3. See <http://www.brake.org.uk/>
4. See <http://www.roadpeace.org/>
5. See <http://www.slower-speeds.org.uk/>
6. See <http://www.cadd.org.uk/>
7. See <http://www.ctc.org.uk/>
8. See <http://www.sustrans.org.uk/>
9. See <http://www.livingstreets.org.uk/>
10. See <http://www.theaa.com/> & <http://www.rac.co.uk/>
11. See <http://www.bhs.org.uk/>
12. See <http://www.fta.co.uk/> <http://www.rha.net/index.shtml>
13. See <http://www.mag-uk.org/>
14. See <http://www.bmf.co.uk/>
15. See <http://www.mcia.co.uk/>

3. Investigating Collisions and Casualties

Introduction

3.1 We need to be much better informed about:

- **Where** collisions and casualties occur.
- **The victims of** collisions and casualties.
- **Why** collisions and casualties occur.

3.2 These three basic questions are interrelated. Finding out **where** and **to whom** collisions and casualties occur will give some indication as to **why** they occur. Individual chapters of this strategy will discuss issues relating to individual users of different forms of travel.

Strategy Objectives

- To make better use of available casualty statistics to assess current road safety problems in Wales.
- To improve the reporting of all types of collision – in order to get a better picture of risk and to understand why collisions occur.
- To relate collision and casualty statistics to road use – giving a measure of risk exposure.
- To explore new and innovative methods for analysis of collisions and casualties.
- To address the contributory factors of collisions through research into both highway infrastructure and road user behaviour.

Strategy

3.3 A great deal of data on road collisions and casualties is currently collected by the Police and analysed by local authorities and the Assembly Government via the "Stats19" report form.

Reporting of Collisions

3.4 There is currently insufficient information as to **why** collisions occur. The Stats19 form, and other collision reporting procedures, are currently the subject of a UK-wide review by the Standing Committee for Road Accident Statistics (SCRAS). The main change is likely to be the recording of "journey purpose" at the time of the collision as a new variable. There is also a possibility of introducing a national system to record contributory factors in collisions which would greatly assist in the research into road collisions/casualties and the most effective solutions.

3.5 Not all collisions that occur on Welsh roads are currently reported via the Stats19 form and therefore do not appear in the published statistics. Particular problem areas are:

- "Damage-only" collisions involving motor vehicles where no one is physically injured.

- Whiplash injuries, which may only become apparent after the cut off point for reporting an injury collision has passed.
- Injury collisions between cyclists and pedestrians – especially on off-road routes.

3.6 As an example of under reporting, **14,350** casualties were recorded in the published statistics in 1999. Data from the All Wales Injury Surveillance System (AWISS), from 12 of the 17 Welsh Accident and Emergency hospitals, shows that **over 16,000** people went for treatment as a result of a road collision in the same year. If all 17 hospitals were to be included in the AWISS statistics, then this figure would clearly be higher still.

3.7 Damage-only collisions can be important in order to obtain a fuller picture of the risk of being involved in a collision. In many cases, the avoidance of any injury is a matter of pure chance and there is no guarantee that in the future, similar damage-only collisions in similar locations will not lead to casualties. A potential source of data for damage-only collisions is insurance company records, which would be able to provide some details on:

- Collision location.
- Time of day.
- Weather/road conditions.
- Journey purpose.
- Contributory factors.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Explore the potential for the collection of collision and casualty data from hospitals and insurance company records and other sources.	Welsh Assembly Government Local Authorities NHS Trusts	✓	

Risk Exposure

3.8 Risk exposure is an assessment of how likely people are to be involved in a collision - based on levels of road use. Collisions and casualties should ideally be expressed as a rate per kilometre or per hour travelled for different groups of people. There is no risk exposure information currently published for pedestrians, cyclists and motorcyclists and there is generally a lack of travel data for these modes. If a complete assessment of progress towards casualty targets is to be made, then risk exposure must be measured – otherwise a reduction in the total number of casualties could simply be achieved by reducing the use of these modes.

3.9 The National Travel Survey will in future include a larger sample from Wales which will enable statistical estimates of the number of trips and distance travelled to be estimated for more travel modes.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Examine the feasibility of monitoring and publishing casualty rates based on the amount of travel by other modes.	Welsh Assembly Government Local Authorities		✓

Collision and Casualty Reduction Studies

3.10 A traditional collision/casualty study uses published statistics to identify a group (or "cluster") of collisions at a single-site on the road network where there appears to be a common cause (such as poor visibility or skidding). Often these clusters occur at "hazardous" features such as a road junction or a bend and involve collisions between motor vehicles. Over the years, local authorities and the Assembly Government have undertaken many engineering remedial treatments at such sites with good results.

3.11 As a result it is now becoming harder to identify single-site clusters and a large proportion of collisions (and the resulting casualties) are now spread across road networks or routes almost at random with no obvious pattern. In urban areas, less than 50 % of collisions now cluster. Collisions involving cyclists, pedestrians and horse riders do not tend to cluster.

3.12 To achieve further significant reductions in the number of vulnerable road casualties, the approach to collision investigation should tackle the issue of scattering over a wider area – in both urban and rural areas.

Urban Safety Management

3.13 The "Urban Safety Management" approach promotes "area-wide", "mass action" and "route action" strategies that are applied **consistently** throughout an urban area, therefore acting as a framework to prioritise road safety solutions. These approaches have a number of common principles:

- Identification of the areas/routes to be treated (from casualty records and consultation with local people).
- Consideration of all kinds of road user, but especially the access needs of the most vulnerable.
- Extensive consultation with local communities in order to identify problems and possible solutions.
- Assessment of the function and use of different types of road – so that traffic uses the most appropriate route.
- Formulation of a local safety strategy for each identified area/route with clear objectives and targets.
- Integration of environmental, engineering, education and enforcement road safety initiatives.
- Integration of safety objectives with other objectives (such as promotion of walking and cycling, improving air quality and road traffic reduction).
- Translation of the strategy and objectives into actual schemes and initiatives.
- Monitoring progress towards meeting the local objectives and targets and review of the strategy if necessary.

Current Good Practice – Urban Safety Management

Gloucester "Safer City" was the pilot project that put the theory of urban safety management into practice. Over the course of five years, a package of safety measures for the whole of the Gloucester urban area was implemented. This included the following:

- Gateways
- Antiskid treatments
- Speed cameras
- Enhanced cycle provision
- Speed cushions
- Complementary education, training and publicity measures.

The results of the five-year programme to date have been:

- KSI casualties down 38%.
- Slight casualties remaining constant – compared to a 7% rise nationally.
- Adult pedestrian casualties fell by 22%.
- Child pedestrian casualties fell by 13%.
- The proportion of KSI casualties fell from 13% to 8% of the total.

The urban safety management approach is now being implemented in a scheme in the Ringland area of Newport, which was identified as a location with a high number of child pedestrian casualties spread over the whole area.

Rural Safety Management

3.14 The "Rural Safety Management" approach assesses the collision and casualty record along a whole route. As well as the number of collisions/casualties and their location, it is important to consider factors such as road length, traffic flow and the needs of pedestrians, cyclists and horse riders. The "route action" approach enables a comparison of collision and casualty rates on different routes and a ranking list to be established based on the following principles:

- Defining the hierarchy of the route(s) in an area in order to encourage appropriate use by traffic.
- Encouraging traffic speeds that are appropriate to the road status and surroundings.
- Encouraging safe journeys by vulnerable modes – walking, cycling, motorcycling and horse riding.
- Encouraging safe leisure use of the countryside.

3.15 The emphasis is on the consistent application of measures to give drivers consistent information. In developing route action solutions, community involvement and support is vital. Route action generally features solutions (except at junctions) such as signing and marking. Typical engineering solutions can include:

- Advance warning and information signs;
- Road markings;
- Lighting (especially of junctions);
- Changes to road alignment;
- Gateway features;

- Safe crossing points for vulnerable road users;
- Resurfacing using skid resistant materials;
- Traffic calming in villages;
- Safety cameras and signing.

Current Good Practice –Rural Town and Village Trunk Road Initiative

The Assembly Government’s *Rural Town and Village Trunk Road Initiative* has adopted a consistent approach to safety management in towns and villages on trunk roads. In setting priorities, account is taken of the facilities in a community such as shops, libraries and schools as well as any collision record. It also includes a model for speed limits, ranging from 30mph in communities with priority facilities or a collision record, to 50mph for scattered clusters of housing on the trunk road.

Projects include provision of pedestrian facilities on the A477 between Folly Cross and Llanteg; highway lighting, speed limit and traffic calming on the A487 Sarnau Village; lighting, footpaths, traffic calming and signing on the A5 at Cerrigydrudion, and speed limit, traffic calming and signing on the A458 at Foel (shown below).



Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Establish an urban “road hierarchy” based on a detailed assessment of movements and desire lines of all road users as part of Local Transport Plans and Unitary Development Plans.	Local Authorities	✓	
Local safety strategies should use the area wide and route action approaches as an integral part of their casualty reduction plans.	Local Authorities	✓	

Safety Scheme Assessment

3.16 Roads are often perceived to be dangerous even if there is no actual collision and casualty record to back these fears up. The absence of recorded collision data is not necessarily an indication that a road is "safe". In the past, local safety schemes have been assessed and prioritised on the basis of recorded collision and casualty data only. In order to address perceived safety fears, and to promote more walking, cycling and horse riding, some Welsh local authorities have broadened the assessment criteria for safety schemes to a formula that includes:

- Pedestrian / cyclist activity;
- Traffic flow;
- The level of a road within the hierarchy;
- Presence of Heavy Goods Vehicles;
- Proximity of schools, shops and other trip attractors;
- The requirement for crossing facilities;
- Observed / measured speed.

3.17 In addition, the use of speed monitoring and video technology can make an objective assessment of perceived safety fears. Many Safe Routes to School Schemes have used speed surveys to quantify problems and develop solutions to address the safety fears of parents and pupils. Much more use of such technology should be made to assess perceived fears and to take action if justified.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
All local authority road safety strategies should feature a broad range of safety scheme assessment criteria based on local priorities and consultation with communities.	Local Authorities	✓	
Routinely undertake speed surveys in response to problems highlighted by local communities.	Local Authorities Welsh Assembly Government	✓	
Address community concerns through community regeneration projects (such as Communities First) and local road safety forums.	Local Authorities Welsh Assembly Government	✓	

A Road User Hierarchy

3.18 Some local authorities have already adopted a road hierarchy that attempts to locate new traffic-generating developments on appropriate (i.e. better standard) routes. However, these hierarchies are often simply based on road characteristics (width, number of lanes, number of junctions etc.) and the motorised traffic function (different types of "distributor").

3.19 In addition to a hierarchy of traffic routes, highway authorities should be considering the development a road user hierarchy based on access needs of people.

Current Good Practice – York Road User Hierarchy¹

The York road user hierarchy states that in the implementation of transport and land use policies, the needs of people will be applied in order of priority:

- Pedestrians
- People with mobility problems
- Cyclists
- Public Transport Users (including taxis)
- Commercial/business users
- Car-borne shoppers
- Coach-borne visitors
- Car-borne commuters and visitors.

The York approach yields results:

- 24% of people walk to work (national average 12%).
- 20% of people cycle to work (national average 2%).
- Cycle collisions have gone down by 28% whilst levels of use have increased.

3.20 The objective of a road user hierarchy is to ensure that the safety and access needs of the most vulnerable road users are considered first. There are numerous examples of highway schemes all over the UK where an excellent design for motor vehicles has been at the expense of pedestrians, cyclists and disabled people who are given inconvenient and often dangerous "facilities" such as footbridges, subways and narrow footways. In many instances, the inconvenient facilities provided are not used and movements such as road crossings are undertaken at dangerous locations. If a road user hierarchy were to be adopted, such a problem would be avoided. In addition, it could also have an impact on people's health and well being in providing safer and cleaner air routes to access jobs, leisure facilities, educational opportunities, etc. as well as helping to reduce the isolation of many people that do not have access to motor vehicles.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Consider the use of an urban road user hierarchy to be used for planning and implementing transport and land-use schemes.	Local Authorities	✓	

1. More details at <http://www.york.gov.uk/>

4. Safety for Children

Introduction

4.1 The issue of safety for children is an emotive subject. The waste of a young life due to a fatality on the road is every parents' worst nightmare. In the period 1994-98, **an average of 14 children per year died as a result of a road collision in Wales.**

4.2 This chapter sets out the measures required to improve road safety for children. Today's children are tomorrow's adult drivers. Road safety good practice that is developed at an early age should maintain safe habits into adulthood.

Key Facts on Child Road Safety in Wales

Table 4.1: Child Road User KSI Casualties (1994-98 average)

Road User	Number of Casualties	Percentage of Casualties
Pedestrians	162	56
Pedal Cyclists	47	16
Motorcyclists	3	1
Car Passengers	69	24
Other vehicles	8	3
All	289	100

Source: Welsh Assembly Government Statistics Directorate

- **Over 70 % of Killed or Seriously Injured (KSI) child road casualties are pedestrians and cyclists.**

Table 4.2: Child Road User Slight Casualties (1994-98 average)

Road User	Number of Casualties	Percentage of Casualties
Pedestrians	700	35
Pedal Cyclists	296	15
Motorcyclists	14	1
Car Passengers	814	41
Other vehicles	153	8
All	1,977	100

Source: Welsh Assembly Government Statistics Directorate

- **Half of Slight child road casualties are pedestrians and cyclists.**
- **Child car passengers make up the largest number of casualties in the Slight category.**

Strategy Objectives

- To reduce all child casualties – especially for pedestrians and cyclists.
- To analyse the causes of child casualties in Wales.
- To treat children as partners in the improvement of road safety – not merely as objects to be discussed.
- To encourage much greater walking and cycling activity by children as part of their personal and social development.
- To address the specific road safety needs of children in different age groups.
- To address the behaviour of other road users that increases the risk to children.

Child Pedestrian Casualties and Social Deprivation

4.3 The occurrence of child pedestrian casualties is strongly linked to social deprivation. A similar link is not present for non-pedestrian casualties. Table 4.3 shows a standardised ratio for pedestrian and non-pedestrian injury admissions – the higher the figure, the greater the admission rate into hospital. A study in Cardiff has revealed that the non-fatal child pedestrian casualty rate was seven times higher in the poorest electoral wards compared to the most affluent.¹ The pedestrian death rate was five times higher for Social Class V children compared to Social Class I. Almost 90% of the child pedestrians were knocked down by a car on a residential street with a 30mph speed limit.

Table 4.3: Standardised Ratios of Injury Admissions (1997-1999) for Children

Deprivation	Pedestrians	Non-Pedestrians
Most	139	104
1	102	105
2	92	98
3	82	102
4	55	88
Total	445	1,102

Source: University of Wales College of Medicine

Note: Average for Wales as a whole = 100

4.4 The reasons for the links with social deprivation still require more research. However, many of the risk factors for child pedestrians are related to the geographic and land use characteristics of the areas where they live and play, including:

- High traffic volumes – especially in the dense urban areas where "rat runs" predominate.
- High traffic speeds and instances of reckless driving linked to crime.
- High housing density and streets with narrow footways.

- A lack of suitable play areas and safe routes to them – resulting in children playing in the street and loitering at dangerous locations.
- A need to cross a higher number of roads in order to access facilities such as shops and schools.

4.5 Recent research in Scotland has concluded that "household-related" factors are even more important than those that are area-based. These factors include:

- Lone parenthood doubles the risk to child pedestrians. Poverty, social isolation and lack of support for child care means that children are not supervised as much as in two-parent households.
- Lack of access to a car results in a doubling of the risk of injury as a pedestrian – because children walk more and are therefore exposed to motor vehicle traffic for longer periods of time.
- Ethnicity – young pedestrians of Asian origin are over represented in the casualty rates by a factor of two.
- Children from deprived households being more likely to be associated with psychological problems such as learning difficulties, over-activity and general poor behaviour. This in turn leads to a greater level of risk taking.

4.6 We will take these factors into account in designing road safety initiatives and we will undertake further research into the links between road safety and deprivation so that projects can become better focussed to tackle the root causes of the problem at a local level.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Research the links between child pedestrian casualties and social deprivation and the causes of collisions.	Welsh Assembly Government	✓	
Identify and implement road safety projects in deprived areas (based on the results of the study).	Welsh Assembly Government Local Authorities	✓	

Walking and Cycling to School

4.7 Walking and cycling to school is on the decline, partly due to parental fears about the possibility of a collision whilst walking and cycling to school. Popular opinion often assumes that:

- Child casualties cluster around schools;
- Most child casualties occur on the journey to school.

4.8 A study in Newport has shown that pedestrian casualties at school journey times are dispersed over the road network and do not cluster around schools.

4.9 Table 4.4 shows that the majority of child casualties (averaged over the period 1994-98) do not occur on the journey to school – with the exception of the relatively small number of casualties that occur on buses and coaches. Even if the distance travelled is taken into account, preliminary research indicates that non-school related journeys are still relatively more dangerous.

Table 4.4: Child casualties by whether on a journey to or from school and by mode of travel (1994-98 average)

Mode of travel	Journey Purpose					
	To/from School		Not to/from School		All Journeys	
	Number	Percentage	Number	Percentage	Number	Percentage
Pedestrian	264	31	598	69	862	100
Cyclists	82	24	261	76	343	100
Car	178	21	682	79	860	100
MiniBus	9	39	14	61	23	100
Bus/Coach	86	63	51	37	137	100
Other	9	21	33	79	41	100
All modes	627	28	1,639	72	2,266	100

Source: Welsh Assembly Government Statistics Directorate

4.10 More analysis of the patterns of child casualties and journey purpose is needed to demonstrate clearly that the problem is not limited to the school journey and also to assist with devising appropriate safety measures and campaigns.

4.11 The results of more and more children being ferried to and from school by car include:

- The loss of opportunities for development of essential skills such as crossing the road safely and cycling in traffic.
- A reduction in exercise levels leading to problems of obesity.
- An increase in peak hour congestion and heavy traffic causing environmental pollution problems, which can adversely affect childrens' health.
- An increase in safety fears for parents – leading to a "vicious circle" of more car use.

4.12 We are already tackling these problems by funding **Safe Routes to School** schemes which:

- Provide defined routes and facilities (such as cycle parking), which children can use confidently.
- Involve children, teachers and parents in planning measures to address their needs and safety concerns.
- Promote initiatives such as the "Walking Bus" where younger children are accompanied on their journey to school in groups (supervised by approved and trained volunteers).



4.13 Travel to school is also the subject of promotional events that promote walking and cycling such as Walk to School Week. **School Travel Plans** aim to encourage schools to identify and solve problems associated with the school journey (especially those related to safety). The plans are produced by the schools themselves and do not have to include physical measures to improve routes but instead are a "way of living and learning". We are already providing funding for five **Travel Plan Co-ordinators** who will help to promote School Travel Plans.

4.14 Good practice in one school should be shared with others. This already occurs to some extent (for example through the *Road Safety Wales* annual newsletter). However, much more needs to be done.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Research study of child casualty patterns focussing on journey purpose.	Welsh Assembly Government	✓	
Continue financial support for Safe Routes to School schemes subject to satisfactory monitoring and evaluation of results.	Welsh Assembly Government Local Authorities		✓
Establish database of good practice for school travel and road safety initiatives.	Welsh Assembly Government	✓	
Provide assistance to schools on the production of Travel Plans.	Travel Plan Co-ordinators	✓	

A New Approach to Road Safety Education

4.15 Changing road user behaviour requires a detailed analysis of tasks that child pedestrians and cyclists need to undertake in order to address problems encountered in traffic. This requires understanding the skills and strategies required to interact with traffic and identifying any deficiencies that require addressing. For example, the task of crossing the road would require the following skills:

- Detecting the presence of traffic.
- Assessing the speed and direction of vehicles and hence the time available to cross safely.
- Co-ordination of information from different directions.
- Relating the time available for crossing to the time required to cross.

4.16 Attempting to fully segregate children (or any other road user) from traffic is unachievable and should only be pursued where danger in a particular location is believed to be exceptional and insoluble. Segregation does not easily lend itself to the development of pedestrian and cyclist skills as it is often (wrongly) assumed that off-road routes are "inherently safe".

4.17 If these skills are not fully developed, then the crossing decision of a child pedestrian will be inadequate and a collision may result. Similar skills need to be identified for other pedestrian manoeuvres (for example on off-road routes shared with cyclists) and cyclists.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Review road safety education to assess emphasis on practical skills.	Local Authorities Welsh Assembly Government	✓	
Set clear objectives for the provision of road safety education based on skills required by child pedestrians and cyclists.	Local Authorities	✓	
Issue guidance on skills-based road safety projects.	Welsh Assembly Government	✓	

Road Safety Education and Training for Pre-school Children

4.18 As pre-school children are always supervised when travelling, parents and carers have the opportunity to use their time to develop basic skills. For this to be achieved:

- Skills that can be learned by pre-school children need to be identified.
- Parents need to be given the support required to teach these skills to their children.

4.19 There is concern that the educational material available has not been taken up by people from lower socio economic backgrounds (whose children are more likely to become a road casualty) and that there is currently a wide variation in the support that is offered to parents, resulting in something of a "postcode lottery".

Current Good Practice – Traffic Clubs

Childrens' Traffic Clubs are aimed at pre-school children. Health Authorities supply local authorities with names and addresses of children approaching three years old. Each child receives a book containing ideas and activities that parents can use as a teaching aid in order to develop basic skills. If parents decide to join the "club", their children receive six books at three monthly intervals. Some local authorities are providing children with free membership e.g. Denbighshire and Wrexham.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Establish Childrens' Traffic Clubs throughout Wales.	Local Authorities	✓	

Road Safety Education and Training for Primary School Children

4.20 The traditional role of education in this age group has been to teach children to understand the dangers associated with use of the road when walking and cycling. This has given rise to a concern that promoting only negative messages will deter parents from allowing their children to walk and cycle.

4.21 Most local authorities now have a policy of promoting the safe use of sustainable travel modes through developing practical skills whilst ensuring that children are streetwise and remain aware of the potential dangers if safe practices are not followed.

4.22 Children should be encouraged to develop their own solutions to problems and hence gain "ownership" of their own safety. Parents could also play a much bigger role in the promotion of road safety. The role of the local authority Road Safety Officer (RSO) could be to develop policies and co-ordinate various initiatives – with more of the practical education and training work being left to trained volunteers.

4.23 Basic road safety education has been introduced into Personal and Social education (PSE) at key stages 1 and 2 (age groups 5 to 11). Despite strong support in many quarters, we are not convinced that road safety should yet be made compulsory in the curriculum, because of the lack of evidence as to the benefits. In the short to medium term, teachers will continue to have the resources and support required to deliver a consistent high quality road safety subject.

4.24 Various child pedestrian and cycle training initiatives are already being implemented by local authorities and schools all over the country. These include:

- **Kerbcraft:** a manual that enables Road Safety Professionals and adult volunteers to train children aged between 5 and 7 in basic pedestrian skills.
- **Learning the Rules of the Road:** a training package based around role-play within schools – using miniature school crossing patrols and uniforms.
- **Cycle Proficiency Training:** offered to children aged 9 or over this usually takes place in playgrounds or other off-road areas.

4.25 To extend the practical skills-based approach will require many more people to become involved and this demands the recruitment and training of volunteers. With Assembly Government funding, all local authorities in Wales have now

appointed a **Child Pedestrian Training Co-ordinator** to establish a practical child pedestrian training scheme for all 5 to 7 year olds in Primary Schools. The scheme will follow the "Kerbcraft" model - using trained and vetted volunteers.



4.26 The basic cycle proficiency course should be made more widely available in schools by local authorities. School travel plans should aim to increase the number of pupils taking the course, and schools themselves should consider incentives to encourage a greater take-up.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Develop targeted action for teaching road safety to young people that will: <ul style="list-style-type: none"> ▪ Assess what is currently being taught. ▪ Identify good practice (especially subjects and methods that pupils find interesting). ▪ Consult teachers on the resources that they believe they require. ▪ Review and improve resources available to teachers. ▪ Evaluate the results of road safety education through a survey of pupils. 	Welsh Assembly Government Local Authorities Head Teachers School Governors Teaching Unions		✓
Monitor Child Pedestrian Training Co-ordinator initiative.	Welsh Assembly Government	✓	
Make the basic cycle proficiency course more widely available in schools.	Local Authorities	✓	

Road Safety Education and Training for Secondary School Children

4.27 When children reach the age of 11, they are becoming more independent in terms of travel. Initially, this travel is by foot and, increasingly, on a bicycle. In the UK as a whole, the number of children killed and seriously injured as pedestrians and cyclists peaks in early secondary school. As they near the age of 17, thoughts start to turn towards motorised mobility – either by car or motorcycle.

4.28 The issue of peer group pressure is particularly important as children get older and become more adventurous. Children at this age will often be aware that a particular action is dangerous and they will have at least the basic skills to travel safely but often still choose to engage in dangerous behaviour because they get a "thrill" out of risk taking.

4.29 This needs to be tackled in a number of ways. Part of the solution is to engage with young people to identify structured opportunities for them to test themselves. At the practical level, there is a need to distinguish between cycling as a means of travel – which requires developing riding skills relating to the presence of traffic and other road users (especially pedestrians) – and as a sport where a degree of excitement resulting from a sense of danger is part of the attraction.

4.30 Safe cycling in traffic is neither a matter of luck and nor is it totally dependent on the actions of other road users (such as car drivers). Safe cycling is about adopting sensible techniques for basic cycling manoeuvres such as changing lanes. This involves being in control of the machine and reading and responding to the actions of other road users.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Undertake safety publicity campaigns using youth culture to tackle the peer pressure problem.	Welsh Assembly Government		✓
Promote on-road cycle skills courses.	Welsh Assembly Government Local Authorities Youth Clubs and youth organisations	✓	

Child Road Safety Audits

4.31 Guidance has been issued on safety audits for cyclists and pedestrians – but not specifically for children. Transport projects, especially those based on the road, do not always address the safety concerns and access needs of children. This is one possible reason why child pedestrian casualties are so high. The planning process is also partly responsible for providing facilities such as schools, parks, playgrounds and leisure centres which require children to cross busy roads.

4.32 The UK government road safety strategy stated that local authorities will be required to undertake "child road safety audits" in order to address the problems posed to children. These can be undertaken at three levels:

- Individual transport and traffic management schemes can be audited for their effect on safe access for children.

- Policies can be audited for their assessment and recognition of childrens' issues. Audits of Local Transport Plans and Unitary Development Plans should be a major priority.
- Analysing records and establishing patterns of child collisions and casualties can assess conditions for children on a road network. On this basis, a programme of engineering, education and enforcement measures can then be planned. The Welsh Association of Technical Officers (WATO) Traffic and Safety Working Group have already adopted this methodology.

4.33 At all times, child road safety audits should be driven by the needs and desires of children, which have been well researched through Safe Routes to Schools work. Children want to be able to:

- play and have access to playgrounds, parks, sports centres, shops etc.
- ride a bike and socialise with friends.
- walk or cycle safely to school.
- cross the road without fear of being hit by a vehicle.

4.34 Audits should positively facilitate these activities and not seek to "protect" children by denying them the opportunity to develop the skills and strategies necessary to travel safely and responsibly.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Undertake Child Road Safety Audits.	Local Authorities Welsh Assembly Government	✓	
Consider the provision of additional training for road safety professionals on child safety issues and audit procedures.	Local Authorities	✓	
Ensure that all transport policies and strategies are audited for their impact on children.	Local Authorities Welsh Assembly Government		✓

Injuries to Children as Car Passengers

4.35 In the period 1994-98, an average of 860 children were casualties travelling as car passengers. Two thirds of these children were aged 11 years and under. In chapter 8, we outline how we plan to reduce the number of motor vehicle collisions and this will make a contribution to reducing the number of child casualties. However, if the target 50% reduction is to be achieved, we also need to focus on reducing the number of child casualties resulting from motor vehicle collisions.

4.36 The UK road safety strategy emphasises the need for standardised fittings for child seats, although there is no collision information as to whether seat belts or child seats were being properly used or whether the child's behaviour was indeed a contributory factor. Another area of concern is the occurrence of collisions involving children getting into and out of cars adjacent to moving vehicles. Information on travel behaviour and links to casualties can only be

collected through research into the circumstances of individual collisions. This will require the development of a survey which could be undertaken at hospitals or by insurance companies after a collision has taken place.

4.37 If examples of unsafe travelling practices involving children are known to lead to car passenger casualties, there should be a multi-agency approach to a programme of education and enforcement of traffic law. We will examine targeted campaigns involving children's organisations, health bodies, road user organisations and the Police. Clear information on safe travel for parents will be provided as part of post-natal care and this will continue as part of the Children's Traffic Club initiative.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Undertake research into circumstances of motor vehicle collisions involving children.	Welsh Assembly Government NHS Trusts and hospitals Insurance companies	✓	
Implement results of the research through education and enforcement campaigns.	Welsh Assembly Government Police		✓

¹ Child pedestrian and cyclist road traffic accident injury prevention in Cardiff – an epidemiological needs assessment (Dyfed Wyn Huws, February 2001).

5. Speed Management

Introduction

5.1 The popular term "speeding" can relate to both **exceeding** the signed speed limit and driving **inappropriately** for the prevailing conditions (even if the signed limit is being observed). This distinction between **excess** and **inappropriate** speed is very important because driving within the signed speed limit is not always appropriate – especially if factors such as adverse weather conditions are present.

5.2 From the point of view of the non car user, excessive or inappropriate speed is one of the most important safety concerns. There is evidence to suggest that the decline in walking and cycling in the UK is partly the result of the safety fears brought about by traffic speed.

5.3 One of the common complaints from all road users is that speed limits are not always applied consistently from one area to the next and as a result are hard to understand. This lack of understanding can lead to speed limits being ignored.

5.4 The Assembly Government is determined to tackle the issue of vehicle speed – in order to reduce speed-related casualties and to promote the use of modes that are currently perceived as vulnerable – walking, cycling and horse riding. This chapter outlines the need to manage vehicles speeds and explains the action necessary for a speed management strategy for Wales.

Key Facts on Speed

- **In the UK as a whole, it is estimated that one third of road deaths (around 1300 per year) are the result of excessive or inappropriate speed. If applied to the 1994-98 average casualty figures for Wales, this would translate to 70 people killed every year through excessive or inappropriate speed.**
- **Figures from the Department for Transport (DfT) for the UK as a whole show that exceeding the speed limit is endemic:**

Table 5.1: Percentage of Drivers Exceeding the Speed Limit

Road Type	Cars	Motorcycles	HGVs
Motorway (70mph)	55	N/A	Few
Dual (70mph)	54	N/A	79-93
Non-built up single (60mph)	10	N/A	60-76
40mph built-up	26	35	7-16
30mph non-built up	69	63	Over 50

Source: DETR Speed Monitoring 1999

- **85 % of respondents to an AA survey admitted to exceeding the speed limit themselves and considered that everyone was doing it.**
- **On average, for every 1 mile per hour increase in average speed, there is a 5 % increase in the collision rate.**

Strategy Objectives

- To significantly reduce speed related casualties – especially deaths and serious injuries.
- To make speeding a socially unacceptable activity – on a par with drink-driving.
- To promote walking, cycling and horse riding through making the local environment safer and less intimidating.
- To reduce excessive speed (travelling over the signed limit) through rigorous but fair enforcement of road traffic law.
- To achieve greater consistency in the planning, implementation and enforcement of speed limits.

Strategy

Speed Management on Non-built up Roads¹

Speed and Collision Frequency

5.5 In terms of the number of Killed or Seriously Injured (KSI) casualties, the problem of excessive or inappropriate speed appears to be most acute on roads in non-built up areas. In the year 2000, there were 982 KSI casualties on non-built up roads in Wales, compared with 790 on built-up roads and 51 on motorways. This is despite the fact that traffic flows on non-built up roads are much lower. Local authority areas with a large non-built up road network have higher numbers of KSI casualties compared to roads in built-up areas. There are a number of reasons for this:

- There is a clear link between speed and collision frequency – a 1% increase in average speed results in a 2.5% increase in frequency of collisions. A 1% increase in average speed results in a 5% increase in casualties.²
- Injuries resulting from a collision are far more serious as a result of higher speeds on non-built up roads.

5.6 Reducing average speeds on the non-built up network will therefore reduce collisions and casualties. At 60mph, research has shown that a 1% decrease in average speed would result in a 4% reduction in collision frequency.

A Non-built up Road Hierarchy

5.7 There are many locations where lower compulsory or advisory speed limits (often in conjunction with other measures) have been imposed on non-built up roads because of poor collision and casualty records.

5.8 However many roads in Wales still retain the "derestricted" limit (60 mph for cars and motorcycles on single carriageways and 70mph on dual carriageways) even though such speeds are inappropriate or unachievable due to the physical characteristics of the road (bends, hills, junctions etc.) and the presence of pedestrians, cyclists and horse riders. If the 40% reduction in KSI casualties is to be achieved across Wales, then a comprehensive review of appropriate speeds on non-built up roads is needed.

5.9 A non-built up road hierarchy can be used to define appropriate speeds by assigning different maximum limits to classes of road based on the "**travel function**" (i.e. who uses a road) and "**quality**" (i.e. physical characteristics) of the road. Research undertaken for the DTLR³ has put forward a three-tier approach:

- **Tier 1:** Through traffic and distribution function **A-class roads** would retain the existing maximum 60mph or 70mph limits. A lower 50mph limit would apply on roads with "poor quality" geometric and topographic characteristics. 30mph limits would generally apply in towns and villages.
- **Tier 2:** Mixed use **B-class roads** where the maximum limit would be 50mph. A lower 40 mph limit would apply on roads with "poor quality" geometric and topographic characteristics. 30mph limits would generally apply in towns and villages.
- **Tier 3:** Local access use **C-class and unclassified roads** where the maximum limit would be 40mph. A 30mph or even 20mph limit would apply in towns, villages and areas where there are high numbers of pedestrians, cyclists and horse riders.

5.10 The Institution of Highways and Transportation *Guidelines for Rural Safety Management*⁴ emphasises the need to ensure that collision data, traffic flow information, activities of vulnerable road users and public consultation all play a role in defining a new road hierarchy.

5.11 The potential benefits from a non-built up road speed hierarchy would result from a much greater consistency of approach to speed limit setting. Research⁵ has found that people:

- exceed the speed limit because they believe it is too low for the location based on experience of "similar" roads with different limits.
- drive at a speed that "feels right" (based on the perception of the road ahead) and hence make their own assessment of the appropriate speed to drive – irrespective of the signed limit.

5.12 A road hierarchy could address the first problem by ensuring that the same speed limit on similar types of road sends a consistent message to drivers and other road users. If drivers can appreciate why a limit is set, and can relate this to examples of roads elsewhere, then they are more likely to exercise a greater degree of compliance.

5.13 The issue of people driving at a speed that "feels right" will not always be solved by a road hierarchy – as there may be sections of road where drivers perceive that they can safely travel faster than the maximum limit (because the road is straight and visibility good). In these instances, there is a need for traffic calming measures to alter the drivers' perception of the road.

5.14 The development of a hierarchy, whilst simple and logical in theory, has practical problems. The large number of unavoidable bends, hills and junctions on large sections of A-class roads in rural Wales means that 60mph is inappropriate in safety terms. If a road hierarchy were to be adopted, there would be three options for these roads:

- Expensive engineering improvements to "straighten out" roads and improve junctions.
- Reduction of speed limits along large sections of route – using visually intrusive and costly "repeater" signs.

- Re-classification of routes to at least B-road status – which may conflict with their actual role within the hierarchy and with the local economy (which relies on the status of A-class roads to attract inward investment).

5.15 The DfT is currently considering the best way to proceed with implementing a hierarchy, the application of a new lower limit on B and C class roads is only one of the possible outcomes of a hierarchy for non-built up roads. A final decision is still some way off. The Assembly Government will not act unilaterally on changing speed limits on different road classes, but it and local authorities will undertake preparatory work towards defining a non-built up road hierarchy in line with the *Guidelines for Rural Safety Management* in order to develop a speed management strategy on a site, area and route basis.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Define a non-built up road hierarchy in order to develop a speed management strategy that identifies sites and routes for application of speed management measures.	Welsh Assembly Government Local Authorities	✓	

Practical Measures on Non-built Up Areas

5.16 The development of a speed management strategy in the short term will put increasing emphasis on the development of innovative speed management solutions on non-built up roads. The use of speed limit enforcement is discussed below. However, because safety cameras cannot be sited everywhere, there is a need to secure greater driver compliance with speed limits using other measures.

5.17 The DTLR publication *New Directions in Speed Management – A Review of Policy*⁶ suggests that, highway authorities should concentrate on three key areas in the short to medium term:

- Main roads (A and B-class).
- Country lanes.
- Villages.

A and B-class Roads

5.18 Many speed-related collisions on single-carriageway A and B-class roads are the result of overtaking or driving too fast to negotiate a road hazard such as a bend or junction. On these routes, the application of lower speed limits (supported by engineering and enforcement measures) should be considered on lengths of road where:

- there are concentrations of hazards such as junctions and bends (especially if there is also a poor collision and casualty record).
- pedestrians, cyclists and horse riders are present – especially where public rights of way cross the road.
- there are a number of settlements close together with short stretches of non-built up road in between.

5.19 Where lower speed limits are implemented, the reasons may not always be obvious to the driver and there is sometimes a need to provide supplementary information giving a justification for the limit. This could be done as an additional plate on the speed limit sign or as a free-standing sign (where more information can be given). Such signs could, for example, inform drivers of the number of casualties on a certain section of road or the presence of other vulnerable road users.

5.20 Much greater use of innovative measures, such as fibre optic signs that detect vehicle speeds and warn drivers in advance of a hazard, should be used.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Continue to apply innovative solutions to sites or routes where a lower speed limit needs to be imposed for safety reasons.	Local Authorities Welsh Assembly Government	✓	
Develop a pilot project to test a range of explanatory signs for use on non-built up roads.	Welsh Assembly Government Local Authorities	✓	

20mph Speed Limits and Zones

5.21 Vehicle speed is not just a problem on non-built up roads. In built-up areas, where there are much larger concentrations of pedestrians and cyclists, the speed of vehicles is a major factor in collisions and casualties. Even at the normal 30mph limit, 4 out of 10 pedestrians who are hit by a motor vehicle (travelling at a legal speed) will die.



5.22 Speed has particular implications for the health and well being of people in built-up areas. In addition to the direct injury sustained at the time of a speed-related collision, there are often longer-term physical and psychological effects. The perceived safety fears related to speed discourage healthy forms of transport (such as walking and cycling) and have the rather more insidious effect of reducing social interaction – cutting people off from everyday facilities.

5.23 Local authorities are now legally entitled to set speed limits to 20mph on individual roads or within whole areas ("zones") in residential areas, in town centres, outside schools and on roads used by cyclists, pedestrians and horse riders.

5.24 The main justification for 20mph zones is that they reduce both the number of collisions and casualties and their severity by reducing speeds. A study⁷ of 250 20mph zones in the UK as a whole has found that:

- Average speeds have fallen by 9mph.
- The annual total collisions have fallen by 60%.
- The number of collisions involving children has fallen by 67%.
- Collisions involving cyclists have fallen by 29%.

5.25 Unfortunately, there is no information on the current number of 20mph zones in Wales and their effects. If 20mph zones are to become more widespread and accepted by the public, such information must become available in order to demonstrate casualty reduction and the wider quality of life benefits.

5.26 20mph zones are currently enforced through physical traffic calming measures such as road humps, build-outs and chicanes - combined with signs (which often have supplementary information) at the entrances to the area. The need for such measures means that 20mph zones can be expensive to implement on a large scale. There is growing pressure for the wider application of 20mph limits as a priority – especially outside schools where there are fears about the safety of children.

5.27 The Scottish Executive has undertaken a trial of 75 20mph zones designated using advisory signing only (the legal limit remained 30mph).⁸ The results of the trial have found that:

- Overall reductions in average and 85th percentile speeds are modest (less than 1.5mph).
- Reductions in speeds are greater where the "before" average speeds are higher.
- A majority of drivers (62%) are therefore still travelling over the signed 20mph advisory limit.
- There has been a reduction in the number of collisions and casualties – although monitoring is still ongoing.
- Residents generally support the zones and feel that they had been successful in both reducing speeds and making their communities safer and more pleasant places to live.

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
More 20mph zones to be established.	Local Authorities	✓	
Develop a pilot scheme of 20 mph zones using different approaches: <ul style="list-style-type: none"> ▪ Signs only ▪ Gateway features ▪ Traffic calming/road re-allocation 	Welsh Assembly Government Local Authorities	✓	
Ensure that 20mph is the normal speed in new residential developments unless there are exceptional circumstances.	Local Authorities	✓	

Speed Limit Signing and Highway Design on Built Up Roads

5.28 On roads in built-up areas, a speed limit of 30mph is the legal maximum where there are street lighting columns no further than 183 metres apart. The exceptions to this legal maximum occur when limits are raised or lowered - often to reflect the function of the road. Therefore for limits **over 30mph** on built-up roads, signs are required at the entrance to the limit **and** at regular intervals to remind the road user of the different limit.

5.29 30mph speed limit signs are only permitted at the start and finish of the speed limit and 30mph "repeater" signs are not legal. This is often a source of complaint in local communities who believe that the absence of 30mph repeater signs results in drivers not being aware of the limit and driving faster than the limit as a result. However the existing system has the merit of being easy to understand – if there are street lights and no signs, then the legal speed limit is automatically 30mph.

5.30 The very limited use of 30mph repeaters is now permitted using a special sign devised for lengths of road areas where there are fixed safety cameras. These signs are being used as part of the safety camera "netting off" project across Wales. However, the wider use of repeaters is not a matter on which either the Assembly Government or local authorities can act without a change in primary legislation. The DTLR Review of Speed Management made no commitment to changing the law on the general use of 30mph repeaters and it must therefore be assumed that any change will only take place in the longer term, if at all.

5.31 Some local authorities are using non-standard advisory signs stating that the "30 mph limit still applies". In terms of providing information to the driver, this is potentially a welcome development. However, there is a need to ensure that not too many versions of a sign proliferate, causing confusion to road users.



5.32 Excessive or inappropriate speed in built-up areas should be tackled through the **combined** use of highway/environmental design measures and signs as part of an urban speed management strategy, both at national and local level. As speed choice is affected by the look and feel of the road environment, it is important to give the impression of danger/restraint to the driver. The challenge is to devise complementary signing and environmental strategies.

5.33 *The Slower Speeds Initiative* good practice guide *Killing Speed*⁹ contains numerous examples based on two complementary approaches:

- Traditional "traffic calming" using visually striking signs and road markings.
- Landscaping and road design measures that minimise visually intrusive signs and clutter.

5.34 The use of speed limit signing techniques to denote a change in the character of a road should be used more widely in order to achieve greater consistency from the perspective of the driver. When approaching a built-up area, drivers need to be made aware that they should change their speed. In addition to the standard speed limit signs, other techniques that should be used include:

- Striking "gateway" features to mark a threshold and make the driver fully aware of the need for lower speed and greater attentiveness. These features should be linked with the place name (which is often missing).
- Fibre optic signs that flash up the change to the speed limit.
- Carriageway roundels, "dragons teeth markings", countdown signs and narrowings in conjunction with the signs.

5.35 In terms of environmental design, coloured surfacing, road narrowings (especially at pedestrian crossing points) and other features (such as road humps or build-outs) should then be used along routes within the speed restricted zone in order to enforce the message of lower speed provided at the gateway. The Assembly Government would also like to see much more use made of good standard on-road cycle lanes as part of wider networks – where road widths permit this. This will provide facilities for this user group and will also narrow the appearance of the road and calm traffic.

Current Good Practice – A4059 Mountain Ash Gateway Signs and Speed Limit Changes

Rhondda Cynon Taff County Borough Council has developed a safety scheme on the A4059 through the town of Mountain Ash. Visually striking gateway signs have been introduced at each end of the town (see photo) to denote the change to a 30mph limit. The coverage of the 30mph limit was also extended to reflect the urban nature of the road. Pavement build outs at junctions and the introduction of centre hatched markings have reduced the carriageway width and calmed the traffic from the perspective of the driver. Before and after speed surveys have shown average reductions in speed of 3mph (northbound) and 5mph (southbound) along the treated length. This translates into a potential reduction in collisions of between 15 and 25%. Monitoring of casualty reduction effects of the scheme is ongoing.



5.36 Environmental design can also encompass less obvious (but no less important) measures to alter drivers' perceptions of a road. These include:

- Use of landscaping and planting at the side of the road.
- The design of parking bays and bus stops at locations where they can act as traffic calming features.
- Introduction of slight bends in the road.
- Different surfacing to denote changes in the use of the road.

5.37 All these measures can assist with changing the appearance of a road and hence reduce speed. Environmental projects – such as town centre regeneration schemes - should consider road safety as a specific objective.

5.38 The issue of parking is especially important. It is often stated that on-street parking should be minimised in the interests of the free movement of traffic and also to improve visibility for drivers and pedestrians. However, this approach must not result in wider roads and increased speeds – any space liberated by the removal of parking should be allocated to pedestrians, cyclists and/or public transport.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Review speed limit signing, especially at gateways.	Local Authorities Welsh Assembly Government	✓	
Consider the introduction of signing and environmental design measures in built up areas as complementary measures in order to give a consistent message to drivers.	Local Authorities	✓	

Speed Management Strategies and Campaigns

5.39 Getting drivers to reduce their speeds cannot be addressed purely by engineering and environmental design measures. Certain mistaken attitudes and behaviour are still held by many drivers (which cannot be changed by physical measures). These include the assertion that it is safe to speed:

- On an empty road at night;
- On straight sections of road;
- Because "I am a better driver than most";
- Because the vehicle has lots of safety features;
- Because "driving faster sharpens my perception and makes me drive better."

5.40 Excessive or inappropriate speed is also part of a culture that is often actively encouraged by irresponsible car manufacturers who advertise the speed as an essential feature of their product. Unlike drink driving, excessive or inappropriate speed is not yet seen as socially unacceptable. Indeed it is still condoned as understandable in many instances with speed enforcement often being branded as "another tax on motorists".

5.41 Traditional speed awareness campaigns at a UK level are exemplified by the "Kill Your Speed" slogan – a short and snappy headline. Whilst these campaigns have proved an invaluable means of raising **awareness** of the issue, there is not enough evidence to suggest that on their own they lead to changes in **behaviour**. Speed awareness campaigns need to address the attitudes and behaviour of drivers who travel at excessive or inappropriate speed by:

- Providing justification for speed management – both in general and at specific locations.
- Focusing on certain types of geographical area which are known to have speed-related problems.
- Providing drivers with alternative methods of driving and to emphasise the benefits of these.
- Integrating speed management campaigns with engineering and enforcement schemes.

5.42 The local dimension is something that is very important to promote, because it provides a powerful justification for action to curb excessive speed. Speed management is more likely to succeed if it is linked to a local issue where people can see the resulting benefits to their community.

5.43 The benefits should not just be seen as collision and casualty reduction. Improvements to the **safety environment** can lead to:

- Increased fuel efficiency for vehicles (and hence cost savings to drivers).
- Increases in the use of sustainable transport modes (walking, cycling and horse riding).
- Better air quality (in terms of vehicle emissions).
- Reduced noise.
- More commercial/tourist related activity.

Current Good Practice – Driving Down Speeds in Devon and S.A.L.L.Y.

Devon County Council has devised a speed management strategy that combines engineering, education and enforcement. The strategy emerged from extensive consultation with local communities and focuses on three broad themes:

- Driver awareness and attitudes (education and publicity).
- Designing for lower speeds (engineering and environmental design).
- Improving compliance with speed limits (enforcement).

The Council has developed locally-based video and action packs entitled *Driving Down Speeds in Devon*. These packs provide support and resources to local communities who wish to take ownership of speed-related problems and solutions. Actions as a result of this campaign include getting residents who are motorists to sign a pledge to drive at a safe speed.

In Monmouthshire, the County Council has developed a speed awareness campaign called S.A.L.L.Y. ("Save a Life and Live Yours"). The face of the campaign was Sally Booth – a Cardiff University student who was recruited to assist with the campaign. Over a two-month period, Sally was stationed at 50 sites in the County and vehicle speed readings were taken and projected to oncoming drivers using a matrix board. No other details were taken and the campaign was designed to give a high profile warning to drivers that they have personal responsibility for ensuring the safety of themselves and others.



5.44 The development of combined speed campaigns should become more widespread in Wales as area-wide and route-action safety strategies are implemented. Campaigns could be based on whole local authorities, individual areas or specific routes.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Undertake publicity campaigns to highlight the justification for particular safety schemes and their benefits.	Local Authorities Welsh Assembly Government	✓	
Investigate more general community concerns regarding excessive speed and produce a speed management education strategy that will support all engineering and enforcement schemes.	Local Authorities Welsh Assembly Government	✓	
Ensure that information on speed management issues and benefits are provided on the road safety Wales website.	Welsh Assembly Government	✓	

Speed Enforcement

5.45 The enforcement of speed limits is currently undertaken by the four Police forces in Wales. Speed detection is undertaken by:

- Police Officers using speed guns/cameras.
- Free standing cameras that automatically take a picture image.

5.46 A popular image of safety cameras is that they exist to "persecute" otherwise law-abiding motorists. **The reality is that safety cameras save lives** by slowing down drivers who would otherwise continue to break the law.

5.47 The issue of resources for enforcement is now being tackled through the safety camera "netting off" project, whereby the Police and local authorities form a partnership, which is legally entitled to reinvest safety camera fines into the purchase of camera equipment and the management of the enforcement programme. **The cameras are located at sites with a history of speed-related collisions and motorists are advised of their presence by signs, high visibility colours on the cameras themselves and advertisements in local newspapers and on local radio.**



5.48 In April 2000, the South Wales Police Area became the first in Wales to participate in the netting off project. Table 5.2 shows that since the project started, fatalities on the roads have been reduced by 25%.

Table 5.2: Fatalities on Roads in the South Wales Speed Reduction Partnership Area

Year	Collision Facilities for All Road Users (Number)	Pedestrian Fatalities (Number)	Fatality Reduction Since Project Inception (%)
1992	80	30	-
1999	63	23	-
2000	51	10	19
2001	48	5	24

Source: Welsh Assembly Government Statistics Directorate

5.49 Ongoing monitoring has revealed that at the camera sites:

- The speed at which 85% of vehicles are travelling has fallen from 41.2 to 30mph.
- The percentage of motorists recorded exceeding the speed limit has fallen from 75.6 to 20.4%.
- The percentage of motorists exceeding the speed limit in excess of 15mph has been reduced from 20.2% to zero.
- The average speed has been reduced from 35.3 to 27.4mph.



- 1 Defined as roads with a speed limit above 40mph (excluding motorway and A(M) roads).
- 2 The Relationship Between Speed and Accidents on Rural Single-Carriageway Roads (Transport Research Laboratory Report TRL511, 2002). A free summary is available at <http://www.trl.co.uk>.
- 3 Development of a Rural Road Hierarchy for Speed Management (Babtie Ross Silcock, October 2001). Available at <http://www.dft.gov.uk>
- 4 Guidelines for Rural Safety Management (Institution of Highways and Transportation, November 1999).
- 5 What Limits Speed? Factors that affect how fast we drive (AA Foundation for Road Safety Research, June 2000).
- 6 New Directions in Speed Management – A Review of Policy (Department of Transport, Environment and the Regions, March 2000). For details go to <http://www.dft.gov.uk>.
- 7 A Review of Traffic Calming Schemes in 20mph Zones (Transport Research Laboratory Report 215, 1996). For details go to <http://www.trl.co.uk/>
- 8 20mph Speed Reduction Initiative (Scottish Executive Central Research Unit, March 2001)
- 9 Killing Speed: A Good Practice Guide to Speed Management (Slower Speeds Initiative, 2001). For details contact: info@slower-speeds.org.uk.

6. Safety for Pedestrians and Cyclists

Introduction

6.1 Pedestrians and cyclists are often referred to as "vulnerable" road users – because in a collision with a motor vehicle, they inevitably come off worst. This vulnerability can be a major deterrent to the increased use of walking and cycling – even though the dangers are often more perceived than real.

6.2 It is very important that these once very popular means of travel are revived. The UK government target to quadruple the number of cycling trips (based on 1996 figures) by 2012 has been adopted in Wales. Many short journeys previously undertaken on foot or bicycle are now undertaken by private car, partly because walking and cycling are not perceived as safe.

6.3 However, the issue of safety and "risk" has to be seen in a much wider context. The alarming rise in obesity and related health problems is now a serious issue – many people are dying prematurely through heart disease and the lack of exercise is a big contributory factor. **The health benefits of regular walking and cycling far outweigh the "dangers" associated with their use.** The British Medical Association recommend 30 minutes walking five times a week as the minimum required to maintain a healthy lifestyle. **Regular cyclists live, on average, seven years longer than non-cyclists.** When discussing the "risk" to life and limb on the roads, such facts should always be borne in mind.

6.4 The measures to manage speed on urban and rural roads outlined in chapter 5 will go some way to improving safety for pedestrians and cyclists – both in terms of casualty statistics and perceived dangers. But vehicles travelling at an appropriate and legal speed can still pose a danger. Therefore, there is a need to actively promote safer journeys (on roads, footways and paths) and training methods for cyclists that teach people how to safely deal with motorised traffic.

6.5 We are currently developing a draft strategy for the promotion of walking and cycling. Local authorities for their part are developing their own walking and cycling strategies – often as regional partnerships – with their own objectives and targets.

6.6 Pedestrians and cyclists have many common interests – especially the need for the provision of safe and convenient facilities which give these modes priority over motorised traffic. However, we recognise that there are potential areas of conflict and that planning for the needs of these two groups often has to consider different issues. In particular, it is vital that the needs of people with mobility impairments are recognised and given the highest priority.

6.7 As part of the development of a Walking and Cycling Strategy for Wales, we are proposing that all Highway Authorities make far more use of walking and cycling **audits** and **reviews** – as detailed in guidelines from the Institution of Highways and Transportation (IHT). We will ensure that our work on Trunk Roads improves conditions for pedestrians and cyclists and takes full account of the needs of all types of pedestrian and cyclist.

Key Facts on Pedestrian and Cyclist Safety in Wales

Table 6.1: Pedestrian and Cyclist KSI Casualties (1994-98 average)

Road User	Number of Casualties	Percentage of Casualties
Pedestrians	434	22
Pedal Cyclists	107	5
All Other Users	1,467	73
All	2,008	100

Source: Welsh Assembly Government Statistics Directorate

- Over a quarter of KSI road casualties and nearly 1 in 5 of all road casualties are pedestrians and cyclists – even though these modes only account for some 4 per cent of personal travel per year.

Table 6.2: Pedestrian and Cyclist User Slight Casualties (1994-98 average)

Road User	Number of Casualties	Percentage of Casualties
Pedestrians	1,606	13
Pedal Cyclists	623	5
All Other Users	10,619	82
All	12,848	100

Source: Welsh Assembly Government Statistics Directorate

- The percentage of slight casualties is lower for pedestrians – reflecting the fact that pedestrians are more likely to be killed or seriously injured if they are involved in a collision.

Table 6.3: Child and Adult Pedestrian Casualties (1994-98 average)

Road User Age	Number of Casualties	Percentage of Casualties
Child	862	42
Adult	1,178	58
All	2,040	100

Source: Welsh Assembly Government Statistics Directorate

- The majority of pedestrian casualties are adults.

Table 6.4: Child and Adult Cyclist Casualties (1994-98 average)

Road User Age	Number of Casualties	Percentage of Casualties
Child	343	47
Adult	387	53
All	730	100

Source: Welsh Assembly Government Statistics Directorate

- The majority of cyclist casualties are adults although the difference is less marked than for pedestrians.

Strategy Objectives

- Reduction in the number of pedestrian and cyclist casualties across all age groups.
- An increase in the number of people walking and cycling in line with Welsh Assembly Government targets.
- Ensuring that pedestrians and cyclists are given priority in any new traffic, transport and safety schemes.
- Giving people with mobility impairments the opportunity to walk and cycle in safety.
- Changing the culture on Welsh roads – with motor vehicle drivers getting used to seeing pedestrians and cyclists using the roads and adjusting behaviour accordingly.

Strategy

Safety for Elderly Pedestrians and People with Mobility Impairments

6.8 The Assembly Government launched a strategy for older people in 2002 and this recognises the importance of healthy lifestyles including physical activity, both in relation to achieving optimum physical and mental functioning in the elderly and in terms of reducing the severity of injuries from falls. Well Being in Wales, published by the Assembly Government for consultation in September 2002, promotes the importance of walking as a beneficial form of exercise for elderly people. Elderly people are statistically **less** likely to be involved in a collision than the general population but are more likely to be seriously injured and killed when they are. In the UK as a whole, more people over 60 are killed as pedestrians than as vehicle occupants. Older people are 50% more likely to be killed whilst making a journey on foot than by car.

6.9 Very little work has been done on analysing elderly pedestrian casualties and it is therefore difficult to speculate on the distribution of casualties and any contributory factors related to age. Raising awareness of elderly pedestrian safety issues (as a first step towards devising solutions) can only be achieved if highway authorities use collision and casualty patterns (in particular the location of casualties) to identify the problems that this group face.

6.10 There is even less information on casualties involving people of all ages with mobility impairments, either in terms of numbers of people affected or contributory factors (i.e. whether the impairment and the design of the highway infrastructure played a part in the occurrence of a casualty). Groups such as Disability Wales have called for more research to be undertaken into this issue and we fully support this view.

6.11 We do know that elderly and mobility impaired pedestrians require more time to perform basic manoeuvres such as crossing roads and the ageing process means that it is more difficult to judge factors such as speed of traffic and distances. We also know that high kerbs and poor road surfaces have an adverse effect on mobility impaired people – often making it impossible for them to get around. Other road users do not always take account of this.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Study of elderly and mobility impaired pedestrian casualties to identify common trends and possible contributory factors.	Welsh Assembly Government Disability Groups	✓	
Consider elderly and mobility impaired pedestrians' needs within local road safety strategies.	Local Authorities	✓	
Develop a national publicity campaign to highlight the needs of elderly and mobility impaired pedestrians.	Welsh Assembly Government		✓

Highway Maintenance

6.12 There is considerable evidence that points to a serious safety problem resulting from the poor surface that is often found on roads, footways and cycle paths.

6.13 Local Authorities are facing an increasing number of claims for injuries as a result of footway falls in particular. Figures from the National Road Maintenance Condition Survey (NRMCS) for England and Wales show the extent of the maintenance problem:

- Over 20% of footways in urban areas are subject to general deterioration.
- On urban unclassified roads, there are an average of 2.2 dangerous "spot" conditions (posing a safety risk to pedestrians) every 100 metres.

6.14 The cause of this problem is a lack of investment in highway maintenance, which stretches back many years. Many local authorities now have a backlog equivalent to over 10 years of work based on current levels. Footways and minor roads (which are more often used by cyclists) in particular have suffered as funds have often been targeted at busier roads with more motor vehicle traffic.

6.15 We have recognised the problem and have provided £25 million of additional financial support for maintenance in the financial years 2001/02 and 2002/03. A proportion of this money is being spent on footway maintenance and renewal.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Allocation of adequate funding to repair and maintain footways.	Local Authorities Welsh Assembly Government	✓	

Cycle Training for Young People and Adults

6.16 In the period 1994-98, 629 out of an average of 730 cyclist casualties per year were for people aged under 40 years of age. The figure of 629 was split between 343 children (up to the age of 15) and 286 adults (between 16 and 39).

6.17 Cycling is already a very important mode of transport and leisure activity for young people and adults. Safe cycling can significantly develop road user skills in young people and good habits can then be translated into the use of other forms of transport – most notably cars and motorcycles and it has significant potential to be used for a larger number of journeys to school, college and work.



6.18 Riding a bike requires a considerable degree of skill, whether cycling off or on-road. However, some cyclists are undisciplined and dangerous. For example, riding on the footway, passing through red lights, travelling on the wrong side of the road, riding without lights and wearing dark clothing.

6.19 Such behaviour gives cyclists a bad name and reduces tolerance amongst other road users, in particular motorists. If a culture of mutual respect and tolerance between road users is to be achieved, there is a need to address poor behaviour by all road users – including cyclists.

6.20 Existing training initiatives – such as the cycle proficiency course – are aimed at children and do not deal with the wider practical skills required for young people and adults to cycle safely and responsibly on the road.

6.21 The publication *Cyclecraft*¹ describes the techniques that adults can use to cycle both safely and effectively on all types of routes and in different weather conditions. Unfortunately, such techniques are likely to be learned by a minority of people who take responsibility for improving their own safety. By and large these are responsible people who are less likely to be involved in a collision through poor cycling skills.

6.22 Research undertaken by the Transport Research Laboratory (TRL) has shown that on-road cycle training is far more effective in safety terms than if it is undertaken in a simulated environment (such as a school playground) because it teaches people to recognise and deal with real traffic hazards. However, there are very few examples of such schemes in Wales. If cycling is to be seriously promoted as a mode of transport, the issue of practical cycle training for young people and adults needs to be addressed.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Develop practical on-road cycle training courses for young people and adults.	Welsh Assembly Government Local Authorities Cycle User Groups	✓	
Consider the implementation of practical cycle training courses as part of company and school travel plans.	Travel Plan Co-ordinators Local Authorities Employers Schools		✓

Off-Road Cycle Paths and On-Road Routes

6.23 There is a big problem of under reporting of "collisions" (with other users and obstructions) and "crashes" (where cyclists lose control of the machine and no other road user is involved) on off-road cycle paths. Based on reports from hospital Accident and Emergency departments, research by the Transport Research Laboratory has concluded that less than 3% of such incidents are reported.

6.24 In the past there has been a tendency to assume that off-road routes are inherently "safe" and cycling on-road is inherently "unsafe". In fact off-road routes require good design standards, competent cycle handling skills and considerate riding in order to be safe to use. On many roads in Wales, cyclists are now a rarity – with the consequence that many drivers now do not expect to see these people and do not adjust their driving accordingly. However, where the National Cycle Network traverses on-road sections, an increase in cyclist activity and better signing is increasing driver awareness.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Consider how collisions and crashes on off-road cycle paths could be monitored and reported.	Local Authorities Local Cycling Groups Hospitals	✓	

Provision of On-Road Facilities for Pedestrians and Cyclists

6.25 Provision of on-road facilities for pedestrians and cyclists has often been piecemeal – with the result that there is no continuous network of safe and convenient routes between where people live and journey destinations. For mobility impaired people in particular, the absence of facilities at just one location can be enough to make a safe and convenient journey impossible.

6.26 In the past traffic schemes have sometimes resulted in significant barriers to cyclist and pedestrian movement, for example, where few crossing points are provided and where pedestrians are legally prohibited from walking at the side of the road.

6.27 It is therefore essential that safer facilities are provided as part of highway schemes (irrespective of whether cycling and walking is the major part of the scheme) as a matter of course:

For Cyclists

- Wide on-road cycle lanes, which re-allocate space for cyclists.
- Advisory cycle lanes at junctions to warn drivers of the presence of cyclists.
- Cycle crossings of roads – either using markings or, where traffic is heavy, Toucan crossing signals.
- Road closures that provide exemptions for cyclists.
- Exempting cyclists from banned turns.
- Advanced stop lines at traffic signals.

For Pedestrians

- Footways wide enough for two people to pass each other in comfort.
- Conveniently located crossing points that avoid the use of footbridges and subways, which are often ignored because of time delays and personal safety fears.
- Dropped kerbs – especially important for mobility impaired people in wheelchairs.
- Tactile paving – to assist partially sighted people at crossing points.

6.28 Local residents and cyclist/pedestrian representative groups should be actively involved at the scheme planning stage or, at the very least, consulted on any proposals.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Consider the provision of safe and convenient cycle and pedestrian facilities as part of any new highway scheme.	Local Authorities Welsh Assembly Government	✓	
Ensure that safe cycle and pedestrian facilities are incorporated into bypassed routes.	Local Authorities Welsh Assembly Government	✓	

Safe Routes to Stations

6.29 The development and promotion of a network of safe routes requires access to destinations for pedestrians and cyclists. A strategy to promote travel via these modes is far more powerful if people can have confidence that they can safely walk and cycle to where they want to go.

Home Zones and Quiet Lanes

6.30 The Transport Act 2000 makes provision for Home Zones and Quiet Lanes in England and Wales. Local authorities may designate Home Zones or Quiet Lanes in their area and will also be able to make orders about the use of these

roads and any speed restrictions that may apply. To enable local authorities to make these orders, the Assembly Government need to pass Regulations following consultation on draft Statutory Guidance.

6.31 A Home Zone is an area or street where the living environment predominates over provision for traffic. Home Zones demonstrate how design can contribute to road safety, environmental improvement and, crucially, the transformation of a street into a social space rather than mere traffic artery.

6.32 Home Zones are common place in Europe, especially in the Netherlands. The main features are:

- Space being shared between vehicles and other roads users.
- Traffic calming features slowing traffic to little more than walking pace (less than 10 mph).
- Parking bays arranged as traffic calming features.
- The presence of features including trees, planters, play areas, cycle stands, communal green spaces and seating areas.

6.33 The Home Zone concept can be applied to either existing residential streets or new-build housing estates. The main criteria for consideration of a Home Zone are:

- Residential support.
- Evidence of existing non-vehicular street activity (such as children playing or people socialising).
- Little communal space currently available.



- Light traffic – less than 100 vehicles per hour at peak times.
- A street length of less than 600 metres.
- The road should be a traffic destination and not a through route.

6.34 In the UK, there is still some resistance to the idea of shared space in residential areas. The concept of segregating pedestrians and cyclists from motor vehicles (enforced with unattractive features such as barriers and subways) still commands some support, despite the fact that quite often this leads to increased speeds and a poor environment.

6.35 However, Wales has actually been at the forefront of the early development of the Home Zone idea, partly because there is a greater tradition of street activity in close-knit communities. Two of the earliest examples of Home Zones are:

- Campbell Terrace, Llywynpia (Rhondda);
- Library Street (Cardiff).

6.36 More recently, the village centre of Magor in Monmouthshire has been transformed into a Home Zone.

6.37 We wish to actively promote the greater use of shared space ideas, and Home Zones in particular. In order to do this in existing areas, local communities should be in the forefront of planning, designing and implementing their own Home Zone solutions – with local authorities and consultants providing the necessary technical expertise. The Institute of Highways Incorporated Engineers (IHIE) guidelines on Home Zones² should be adopted as standard. There are already a number of other publications that can also be adopted as supplementary guidance and information³.

6.38 For the new homes that will be built in Wales in the future, there should be a new approach to estate design that does not always attempt to design roads for the fast movement of all possible types of vehicle. In particular, local authorities should promote Home Zones by providing clear guidance to developers using the relevant guidelines.

6.39 Whilst much of the safety focus has been on urban areas and utility journeys, there is also a rapidly emerging issue about cyclist and pedestrian safety in rural areas. The increase in people's leisure time, coupled with the growth of "sustainable tourism" means that more and more people are being encouraged to walk and cycle in the countryside at weekends and during their holidays.

6.40 The more general promotion of tourism in Wales is resulting in an increase in traffic - leading to problems of air/noise pollution, and most importantly, an increase in real and perceived road danger. Over 90% of people visiting the Welsh National Parks now arrive by car.

6.41 Quiet Lanes are areas which are actively promoted as routes where cyclists, pedestrians and horse riders have priority over motor vehicle users. These routes can be traffic calmed, signed and subject to lower speed limits. The use of publicity to denote the special nature of these routes is also essential. The Quiet Lanes initiative is currently being piloted in a number of English rural areas⁴ and National Park Authorities in Wales have already expressed interest in the idea.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Consult on draft Statutory Guidance and Regulations for Home Zones and Quiet Lanes.	Welsh Assembly Government	✓	
Feature Home Zone information and advice on the new road safety Wales web site	Welsh Assembly Government	✓	
Assist local communities and local authorities in the development of Home Zone projects, by providing advice on possible sources of funding from non-transport sources (such as Communities First).	Welsh Assembly Government		✓
Consider adoption of design-guidelines for Home Zones and requirement for developers to follow these designs on suitable roads in new developments as part of the planning process.	Local Authorities		✓

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- 1 Cyclecraft: Skilled Cycling Techniques for Adults (John Franklin, 1997). Available from HMSO.
 - 2 Home Zone Design Guidelines (Institute of Highway Incorporated Engineers, June 2002)
 - 3 For example: Home Zones: A Planning and Design Handbook (Mike Biddulph, December 2001).
 - 4 For more details see <http://www.quiet-roads.org.uk>.

7. Safety for Horse Riders

Introduction

7.1 Horse riding is a popular activity in Wales and an integral part of the economy – especially in rural areas. In England and Wales as a whole, owners and riders spend around £2.5 billion per year on horse purchase, care, equipment and lessons. Horse riding is a significant generator of tourist activity. For Wales, this equates to a figure of around £200 million per year to the economy.

7.2 We are therefore keen to promote horse riding as a mainstream activity in order to develop tourism initiatives. However, this can only be done if there are safer conditions for horse riders, especially for those people who are new to the activity.

Key Facts on Horse Road Safety

7.3 Estimates on the number of horse-related collisions vary. The British Horse Society estimates that in the UK as a whole, there are at least 3,000 per year – equivalent to 8 per day. Over 100 horses are killed on the roads every year. Other estimates are considerably higher. Over 50% of the collisions occur on minor roads, reflecting the fact that these routes are used by horses on a regular basis.



Strategy Objectives

- To increase the safety of horse riders on Welsh roads.
- To make drivers aware that horse riders are present on the roads and to modify driving behaviour accordingly.
- To provide more training opportunities for horse riders.
- To plan safer routes for horse riders off-road.

Strategy

Reporting

7.4 As with pedestrians and cyclists, many collisions and casualties are not reported in official statistics and the true safety picture is therefore under estimated. Those riders who experience a frightening near miss are often deterred from further riding activity.

7.5 There is a need for more information on exactly why collisions and incidents involving horses occur. The British Horse Society distributes a report form that can be used to record collisions and other incidents. We will work with the British Horse Society and organisations such as riding schools to promote the report form across Wales.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Consider improving the collection of data on horse collisions, casualties and near misses.	Welsh Assembly Government British Horse Society	✓	
Investigate the collection of collision and casualty information relating to horse riders by means other than a Stats19.	Welsh Assembly Government Hospitals	✓	
Develop local publicity and enforcement campaigns in areas where horse collisions and casualties are revealed to be a problem.	Local Authorities Police		✓

Driver Awareness

7.6 Horse riders are concerned that far too many drivers do not modify their behaviour when they approach and pass horses on the road. Even if there is no actual collision, the speed and proximity of the motor vehicle creates noise that can frighten horses and can cause them to rear up and bolt.

7.7 A standard warning sign for drivers which highlights the presence of horse riders on the road is available for use by highway authorities but is not much used. One of the reasons for this is lack of information about the routes most used by horse riders where signs could be most appropriately located.

7.8 Action should be taken to identify routes that are currently regularly used by a significant number of horse riders and "gateway" signs erected at either end of routes (for example at junctions with bridleways and riding schools) to inform drivers that they are entering a "special" area.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Raise drivers' awareness when encountering horse riders through developing a national publicity campaign.	Welsh Assembly Government Local Authorities Wales Tourist Board British Horse Society	✓	
Identify roads that are regularly used by horse riders and implement appropriate signing.	Local Authorities Local Access Fora	✓	

Training for Horse Riders

7.9 There is a concern that some people are taking to the roads without the necessary training and horse handling skills. The British Horse Society actively promotes riding and road safety training through their code of conduct *Horse Sense for Riders* and the Riding and Road Safety Test. The latter is a stringent three-stage examination that is taken by over 5,000 candidates a year in the whole of the UK, focussing on:

- A written theory examination that tests knowledge of riding on the road.
- A simulated road route that tests reaction and horse handling skills in response to a number of hazards.
- A road riding test – following an on-road route that assesses competence in meeting motor vehicles and other hazards.

7.10 More riders need to be encouraged to take advantage of the training that is already available – especially amongst people on lower incomes who make up a large proportion of all riders.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Promote training and testing for horse riders.	Welsh Assembly Government British Horse Society		✓

Safer Routes for Horses

7.11 Horse riders often have little choice but to use roads. The bridleway network in Wales is very fragmented – with the result that it is often impossible to ride more than half an hour off-road before having to transfer on to a road.

7.12 The *Quiet Lanes* initiative, described in chapter 6, will give a much higher profile to the needs to horse riders, in particular by reducing traffic speeds and making drivers aware that there are other road users present.

7.13 The Countryside and Rights of Way Act 2000 requires local authorities to produce Rights of Way Improvement Plans. This is an opportunity to provide a comprehensive network of bridleway routes that will meet the needs of horse riders. In particular, circular routes that allow horse riders to start and finish at the same location.

8. Safety for Motor Vehicle Users

Introduction

8.1 It is estimated that human error is a contributory factor in 95% of all collisions and the primary factor in about 70%. However, it is often stated that a road is "dangerous" because it has a large number of junctions, bends or hills. Whilst such roads often do have worse casualty records, human error is still the ultimate contributory factor.

8.2 As with the issue of speed, drivers need to understand the reasoning behind responsible driving practices. Responsible driving will be actively promoted. In order to help achieve this, highway authorities (local authorities and the Assembly Government) will continue to identify improvements to the road network that will actively encourage safer driving.

8.3 The strategy for improving safety for motor vehicle users (both drivers and passengers) in Wales therefore addresses both the road users behaviour and highway design issues. Issues relating to motorcyclists are dealt with in chapter 9 as they have been identified as having a significant safety problem in their own right.

Key Facts on Motor Vehicle Safety in Wales

Table 8.1: Motor Vehicle Casualties in Wales (1994-98 average)

Casualty Severity	Car Users		Other Users*	
	Drivers	Passengers	Drivers	Passengers
Slight	5,458	3,771	363	498
KSI	666	449	57	42
All	6,124	4,220	420	540

* includes users of HGVs, buses, farm vehicles etc. Table excludes pedestrians, pedal cyclists and motorcyclists.

Source: Welsh Assembly Government, Statistics Directorate

- **70% of all casualties in Wales involved car users – easily the highest number of casualties.**

Table 8.2: Motor Vehicle Casualties by Road Area (1994-98 average)

Road User	Motorways		Roads in Built-up Areas		Roads in non Built-up Areas	
	KSI	All	KSI	All	KSI	All
Car Driver	15	186	216	3,343	435	2,595
Car Passenger	10	111	156	2,211	283	1,898
Other Driver	2	22	16	168	39	230
Other Passenger	1	11	15	383	26	147
All	29	330	402	6,104	783	4,870

Source: Welsh Assembly Government, Statistics Directorate

- **Whilst 54% of all motor vehicle casualties occur on roads in built-up areas, two thirds of KSI casualties occur on motorways and non-built up roads.**

Strategy Objectives

- To significantly reduce casualties involving drivers and passengers in motor vehicles – especially deaths and serious injuries.
- To improve the standard of driving in Wales across all age groups and address examples of poor behaviour.
- To target the journeys during the course of work as a key area for casualty reduction.
- To address the worst collision and casualty problems through targeted investment.
- To improve the condition of the road surface and of signs and markings.
- To use new technology to promote safe driving practices.

Strategy – Road User Issues

Collisions During the Course of Work

8.4 Collisions, and the resulting injuries, incurred during the course of work are estimated to cost companies in the UK between £3.5 and £7.3 billion per year in damage to equipment, administration, lost output and increased insurance premiums. If costs to society as a whole are added in, this figure jumps to between £14.5 and £18.1 billion.

8.5 A study¹ undertaken by the Transport Research Laboratory (TRL) has found that mile for mile, company car drivers have collision rates 30 to 50 per cent higher than comparable private drivers. The study went on to conclude that existing measures to improve fleet safety are ineffective and that improvements can only be brought about by introduction of a set of integrated measures based on a strong safety culture within each organisation.

8.6 A survey for the 2001 RAC Report on Motoring² found that only 12% of drivers in work had received any kind of formal training in safe driving and/or health and safety. In the same survey, over a quarter of drivers stated that pressure from their employers to get to a destination on time had caused them to drive whilst tired.

8.7 The independent Work-related Road Safety Task Group, appointed in May 2000 jointly by Government and the Health and Safety Commission to recommend measures aimed at reducing at-work road traffic accidents, published its report in November 2001. The report, *Reducing at-work road traffic incidents*³, estimates that between a quarter and a third of all road traffic collisions involved someone who was travelling during the course of work at the time. The key proposal is that existing health and safety law should be applied to on-the-road work activities and that employers should manage road risk in the same way as they manage other occupational health and safety risks.

8.8 The Assembly Government, which was involved in the study, is fully committed to playing its part in implementing the main recommendations of the report in Wales.

Driver Fatigue

8.9 The Selby Rail disaster illustrated the potentially catastrophic consequences of driving whilst tired. Driver fatigue is a major problem – the principal contributory factor to around 10% of all collisions in the UK. This rises to between 15-20% on "monotonous" roads, such as motorways and dual carriageways (which otherwise have lower collision and casualty rates).

8.10 Research undertaken by the DTLR⁴ has concluded that Sleep Related Collisions (SRCs) are:

- Most likely to occur during time periods where the human "body clock" is in a daily trough: 0200 to 0700 and 1400 to 1600.
- More likely to result in death or serious injury (because there is less braking involved and the impact speed is higher).
- More likely to affect men under 30 years of age.
- Often work-related (involving commercial vehicles) – around 40% of all SRCs.
- Predictable - drivers are aware that they are tired in advance of a collision and take steps such as winding down the window and turning up the radio.

8.11 Fatigue is clearly an issue that must be tackled by employers under their risk assessment and health and safety systems. However, both highway authorities and the individual driver can also play a leading role in preventing SRCs.

8.12 DTLR research on three traffic routes in England has shown that whilst "clusters" of SRCs do occur on roads there are no firm conclusions on particular characteristics that influence SRCs. A similar mapping study to identify patterns of SRCs on routes in Wales could identify cluster areas where specific measures (such as signing, provision of rest/service areas and localised driver information campaigns) could be introduced. Such a study may also help to identify if there are any particular road features present when SRCs occur. If this is the case, then it may be possible in the longer term to re-design sections of highway in order to reduce the likelihood of SRCs occurring.

8.13 In terms of targeting the individual driver, drivers are already being made more aware of the issue through leaflet information on:

- Recognising the "danger times" when SRCs are likely to occur.
- Recognising the types of road (and areas within Wales) where SRCs are more likely to occur.
- Recognising the warning signs that accompany the onset of fatigue.
- Taking effective action to relieve fatigue during the course of the journey – in particular short sleep breaks and consumption of caffeine.

8.14 In order to build upon this good work already being undertaken, there is a need to target particular areas, routes and drivers who appear to be most at risk of an SRC.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Undertake a mapping study of SRC to identify locations and possible road characteristics.	Welsh Assembly Government Local Authorities Police	✓	
Review the provision of serviced rest areas and use of warning signs.	Welsh Assembly Government Local Authorities	✓	
Raise drivers' awareness of fatigue through targeted publicity campaign.	Welsh Assembly Government Local Authorities Police		✓

Misuse of Mobile Phones

8.15 In the year 2000, 8 people in the UK were killed in collisions where it was established that the driver was using a mobile phone. It is likely that many more collisions occurred where mobile phone use was a factor.

8.16 Drivers using a mobile phone can currently be prosecuted for **driving without due care or attention** or given a fixed penalty notice for **not being in proper control of a motor vehicle**. There is no specific offence for driving whilst using a mobile although the UK government is currently consulting on the possible introduction of a specific offence to prohibit the use of any hand-held mobile phone or similar device by drivers.



8.17 There is little doubt that the increased misuse of mobile phones is causing serious concern amongst both the Police and road users. Using a mobile phone whilst driving is dangerous in a number of ways:

- For many phones, use of one hand is required to operate the phone and this is removed from the steering wheel – thus reducing the ability to control the vehicle.
- Conversations on the phone result in the driver not paying full attention to the road and traffic conditions – leading to slower reaction times. A study by the Transport Research Laboratory (TRL) has concluded that compared to someone not using a mobile, the reaction time increased by 0.5 seconds. This is an even longer reaction time than someone driving whilst under the influence of drink.
- Use of a "hands free" kit whilst driving is unsafe and should be discouraged – because the act of having a conversation with a person not present in the vehicle still diverts concentration away from the driving task.

8.18 A two week enforcement campaign in March 2002 saw a total of 483 drivers stopped by Welsh Police, for using a mobile phone whilst driving – an alarming number in such a short space of time.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Periodically undertake campaigns relating to the use of a mobile phone whilst driving.	Police Welsh Assembly Government	✓	

Drink-Driving

8.19 Although drink driving is now regarded as socially unacceptable by society as a whole, there is still a hard core of offenders who continue to put themselves and others in serious danger. In 2000 for Wales as a whole, 655 casualties occurred where at least one driver was found to be over the drink-drive limit. Drink-driving offences are most prevalent:

- On Friday, Saturday and Sunday.
- Between 2300 and 0059.



8.20 Two groups in particular are over represented in terms of drink-driving convictions and collisions:

- **Younger (mainly male) drivers** – who appear to be ignorant of the danger posed by this practice.
- **Older male drivers** – who conversely see their greater experience and perceived skill as enabling them to drink-drive safely.

8.21 Existing campaigns, based around the peak Christmas period, are not getting the message through to these groups of people. There is a need to maintain the focus of existing general campaigns whilst considering how to target the most persistent offenders.

Crime and Disorder

8.22 The focus for anti-drink driving measures and the targeting of persistent offenders should be based on factors revealed by local crime and disorder reduction strategies which have been produced by each local authority in conjunction with the Police. Consumption of alcohol and links to criminal

activity is a very big issue and the underlying causes of drink driving should be tackled at this level.

Promoting Health in Wales

8.23 The Assembly Government strategy *Better Health Better Wales*⁵ identified the abuse of alcohol as a key problem to be addressed. The follow up consultation document, *Well Being in Wales*, encourages an integrated approach to transport and health policies to meet common objectives, as does the Assembly Government's health promotion strategy 'Promoting Health and Well Being'. If the reasons for excessive drinking are made clear, it may be possible to identify and target groups of people who are most at risk of offending. So although we know that older male drivers are more at risk of offending generally, it may be that there are certain sub-groups who have particular problems and can therefore be targeted for assistance through the health improvement process.

Young People

8.24 The alarming rise in the number of young people being convicted of drink-driving demands that action be taken to understand the problem and devise effective education measures. Many of these can be undertaken at school – before young people have learned to drive and develop dangerous habits. However, care has to be taken to ensure that the messages are presented in a way that young people can relate to. Giving a standard classroom lecture is not likely to stimulate interest or understanding.

Current Good Practice: "Smashed" Drugs and Alcohol Drama

"Smashed" is a drama production developed by Coleg Powys, Newtown aimed at young people that highlights the very serious consequences of drinking or taking drugs and driving. After the performance, young people are given the chance to discuss a number of topics related to drugs and alcohol and the effects on driving:

- **Life style issues: do we need drink and/or drugs to have a good time?**
- **Peer pressure: is this a problem for everyone?**
- **Responsibility to others – driver, pedestrian, friends, family etc.**
- **Short and long term consequences: decision making, jobs, relationships, health, medical treatment etc.**
- **Medical issues: how long do drugs and alcohol stay in the body?**

8.25 The use of "role models" to publicise safety messages to young people is something that could be much better developed in Wales. If young people follow the example of their role models, it could be possible to influence behaviour. Wales is justifiably proud of its sporting and cultural image and this should be used to promote road safety messages.

The Drinks Industry

8.26 Whilst responsibility for drink-driving ultimately rests with the consumer, those organisations who sell alcohol have a duty to do everything within their power to ensure that their product is not abused. The contribution of the drinks industry (in particular the *Portman Group* representative organisation) should be sought to target anti-drink driving messages at particular market segments.

Current Good Practice: Designated Driver Schemes

"I'll be Des" is a campaign that encourages groups of people to "designate" one of their number to drink only soft drinks – and then drive everyone home safely and legally. The campaign, launched in August 2001, included radio commercials, bus-back advertising, distribution of free literature as well as support from various pub chains, major sports clubs and the Police. Some pubs have provided free soft drinks for the designated drivers as an incentive to participate.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Continue enforcement throughout the year of drink drive legislation.	Police	✓	
Continue campaigns to highlight the dangers of drinking and driving.	Welsh Assembly Government Local Authorities Police	✓	
Local Crime and Disorder strategies should ensure that measures to target persistent drink-driving offenders are developed.	Local Authorities Police	✓	
Develop a series of publicity campaigns aimed at influencing behaviour using role models from the world of sport, music and theatre.	Welsh Assembly Government		✓
Actively promote the Designated Driver scheme.	Welsh Assembly Government Portman Group	✓	

Drugs and Driving

8.27 A wide range of drugs can adversely effect driving skills – impairing judgement and slowing down reaction times. Many of these drugs are perfectly legal prescription medicines and people are often totally ignorant of the fact that taking these drugs can affect driving.

8.28 Driving whilst under the influence of drugs is a growing problem. In the UK as a whole, the number of collisions involving a driver with drugs in their system has increased from 3% to 12% since the mid 1980s. A study by the DETR in 1998 concluded that 20% of all drivers involved in fatal road collisions had drugs in their system. However, the extent of drug driving is somewhat unclear as there is no reliable roadside test currently available. This means that drivers do not perceive that they will be stopped and tested for the presence of drugs – in the same way as drink drivers currently are.

8.29 In Wales, there is no direct evidence as to how prevalent the problem of drug-driving really is, in particular regarding:

- The number and type of people who drive whilst under the influence of illegal drugs – especially cannabis, heroin and cocaine.

- The number and type of people who drive whilst under the influence of prescription medication.
- The number of collisions where the influence of drugs is a factor.

8.30 Only when particular problem population groups and areas are targeted will it be possible to devise an effective strategy to tackle the issue. However, drug driving is part of a much wider problem in Wales as a whole – and approaches to tackling the issue should integrate with existing initiatives being promoted by the Assembly Government.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Undertake a research study of the problem of drug driving in Wales.	Welsh Assembly Government	✓	
Undertake a national publicity campaign to make people aware of the dangers of driving under the influence of drugs.	Welsh Assembly Government	✓	
Consider how to integrate the dangers of drug-driving into existing drug education and rehabilitation initiatives.	Welsh Assembly Government	✓	

Younger Drivers

8.31 Learning to drive is often seen as a "right of passage" – part of the transition from childhood to adulthood. However, that transition can be a dangerous one. In the UK as a whole, around 11% of driving licences are held by people in the 17-24 age group, yet this group are involved in over 25% of all KSI collisions. Fatality rates for males aged 17-20 are ten times those of male drivers aged 35-54.

8.32 The reasons for the young driver problem are complex and can appear to be contradictory. Contributory factors are rooted in a mixture of psychology and driver experience.

8.33 Research into the behaviour of younger drivers has concluded that there are a number of important psychological factors at work:

- **Peer pressure and speed:** male drivers in particular travel faster when accompanied in the car by other males.
- **Sensation seeking:** driving violations such as dangerous overtaking and tailgating are often the result of young people – males in particular – seeking a "thrill".
- **Anti-social behaviour:** many examples of dangerous driving are little more than anti-social behaviour on wheels. There is a strong relationship between anti-social behaviour and excessive/inappropriate speed.

8.34 In addition to psychology, the lack of practical experience of driving can lead to problems:

- **Hazard perception:** the inherent lack of experience that young drivers possess is most evident in terms of the lack of ability to perceive "hazards" – such as bends, other moving cars, crossing pedestrians, cyclists and parked

cars. Younger drivers are over represented in the main types of collision - single-vehicle, on bends, rear end shunts and right turns.

- **Fatigue:** there is also evidence to suggest that fatigue is a problem for young drivers at night. In New Zealand, a scheme to limit driving of newly qualified drivers after midnight resulted in a dramatic reduction in the number of collisions – although due in part to a reduction in exposure because of less driving.
- **Increases in speed:** studies in the UK suggest that for young drivers, speeding offences increase in the first three years of driving – as drivers become too confident in their vehicle handling and error recovery skills.

8.35 The potential solutions to collisions involving young drivers must address both psychological and driver experience problems. Potentially dangerous attitudes to the driving task (such as choice of speed) are often formed prior to learning to drive. Therefore the need to change psychological attitudes demands that initiatives must begin as soon as children think about learning to drive – perhaps as early as 15 years of age.

8.36 Recent research in Scotland suggests pre-test driver projects that are only based in the classroom have little effect on changing attitudes to driving. Instead there is a need to focus on practical projects that give pupils real experience of driving a motor vehicle.

Current Good Practice: Mega Drive

The Mega Drive project is a road safety course for pupils in the 15 to 17 age group that includes a practical training session using either a car or moped.



8.37 Post-test driver training programmes view the learning to drive experience as a long term one, that does not end once the official test has been passed.

Current Good Practice: Pass Plus

The Pass Plus scheme aims to develop and refine the skills of newly qualified drivers.

Denbighshire County Council offer free places on the Pass Plus scheme to encourage the take up.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Consider how practical pre-driver training programmes can be made more widely available.	Welsh Assembly Government Local Authorities	✓	
Explore the feasibility of reduced premiums for people who successfully complete the Pass Plus training.	Welsh Assembly Government Insurance Companies	✓	
Undertake a monitoring project to assess the effect of driver training projects on driver behaviour.	Welsh Assembly Government		✓

Goods Vehicles

8.38 Collisions involving Heavy Goods Vehicles (HGVs) are statistically relatively rare. However, the size of these vehicles, which means that the consequences of a collision are often very serious, gives the impression of danger. There is no doubt that cyclists and pedestrians can feel especially vulnerable in the presence of large numbers of these vehicles although the dangers can be overstated compared with the benefits of cycling and walking.

8.39 In some areas of the UK, local authorities, the freight industry, individual companies and local communities are already beginning to work together to promote **Freight Quality Partnerships (FQPs)**. The overall objective of an FQP is to balance the essential need for goods vehicle access with concerns over the safety and environmental impact of HGVs on local communities.

8.40 A common element of FQPs is the designation of agreed routes that will be used by HGVs to access particular areas. These routes avoid residential areas where there are concentrations of vulnerable road users (such as children). Highway Authorities have the power to enforce access restrictions through the imposition of weight or width restrictions. However, it is often difficult for Police to enforce any such restrictions.

8.41 The designation of HGV access routes is in line with the promotion of a road hierarchy – where certain types and volumes of traffic are encouraged to use roads of the appropriate standard.

8.42 Another element of FQPs is additional driver training and awareness of vulnerable road users – something which the haulage industry is keen to promote.

8.43 There is also a need to make vulnerable road users, children in particular, aware of the potential dangers posed by HGVs – in particular the fact that there are many more blind spots for a driver than are present in a car. Such awareness raising should not make children (and their parents) afraid of HGVs and hence reduce their use of walking and cycling. The aim should always be to promote safe and sustainable travel. The Road Haulage Association currently promotes a scheme where local HGV drivers bring a vehicle into a school and talk to children about the issues surrounding HGV vehicle usage (including safety). This is a good example of co-operation between schools and the private sector and the Assembly Government is keen to see more of this type of initiative.

8.44 Progress on the development of FQPs in Wales is slow. Many Local Transport Plans made very little reference to freight issues (especially in a road safety context). There has been some recent work to develop regional and area FQPs but little evidence to suggest that local authorities have taken the issue seriously enough. It is therefore essential that progress on this issue is made.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Freight Quality Partnerships should be actively implemented on either a local or regional basis.	Local Authorities Freight Transport Association Road Haulage Association	✓	
As part of school travel plans, invite hauliers to give presentations to children on issues related to HGVs.	Local Authorities Schools Haulage companies	✓	

Taxis

8.45 There is a general concern that driving standards among taxi drivers are not as high as they could be. However, the current statistics do not distinguish taxis from cars and so an accurate assessment of the problem is currently very difficult.

8.46 The concern over standards stems from the fact that it is very easy to become a taxi driver with no compulsory training and few safety checks. This problem is partly the result of the fact that local authorities are obliged to accept licence applications from anyone who has held a full driving licence for a year or more.

8.47 In the absence of changes to the way in which taxis are licensed, there is a lot more that could be done to improve standards of driving on a day to day basis. At present, for example, there is no nationally agreed standard of driving that taxi drivers and operators should adhere to.

8.48 As with other road users, advanced driving courses, especially those featuring defensive driving techniques, should be actively promoted to drivers as part of implementing the code of conduct.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Produce official statistics to show separate collision and casualty figures for taxis.	Welsh Assembly Government	✓	
Explore the adoption of a national code of conduct for taxi drivers and operators.	Welsh Assembly Government Local Authorities Taxi operators		✓

Driver Improvement Schemes

8.49 Whilst there are certain groups of drivers that can be targeted for particular road safety initiatives there will always be a general need to promote a culture of continuous improvement among all drivers. Passing the driving test should be seen as only the first stage in a life long learning process.

8.50 It is also sometimes assumed that measures such as speed management (reducing limits, increasing enforcement) automatically makes driving intrinsically "safe" (as opposed to "safer"). However, collisions and casualties still occur even when a person is driving within the speed limit and is unimpaired through drink, drugs and fatigue. This is because driving is an inherently complex task that, because it is often performed every day, can often lead to a dangerous familiarity and complacency.

8.51 The Institute of Advanced Motorists (IAM) promote an advanced driving test and to date, around 110,000 people in the UK as a whole have taken and passed it. There are a number of organisations that promote advanced driver training courses and "defensive" driving techniques. However, as with related initiatives for younger drivers, these tend to be taken up by people who already demonstrate responsible attitudes to driving and not problem groups of drivers. Post driving test-training schemes will therefore only become more widely taken if there are financial incentives given for people to make the effort.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Promote advanced driver training as part of company travel plans and amongst employees of public authorities.	Local Authorities	✓	
Establish a register of organisations that promote advanced driver training courses and publicise these on the road safety Wales web site.	Welsh Assembly Government	✓	
In conjunction with insurance companies, investigate the promotion of financial incentives following the advanced driving test and other training courses.	Welsh Assembly Government Insurance Companies	✓	

Strategy – Safety Improvements to the Road Network

Safety on Trunk Roads and Motorways

8.52 Trunk Roads and Motorways are the main strategic routes in Wales – carrying over 50% of all traffic in the country – even though they make up less than 5% of the total road length. The only motorways are the M4, M48 and A48(M) in south Wales – only motorised vehicles above 50cc are permitted to use these roads. The remaining Trunk Roads vary from dual carriageway expressway routes – most notably the A55 in north Wales – to single carriageway

routes with large numbers of bends, hills and small junctions. Trunk Roads pass directly through many villages and smaller towns – with the result that many such routes are used by non-motorised road users for purely local journeys.

8.53 In safety terms, the record of Trunk Roads and Motorways is relatively good – with less than 16% of recorded casualties (1994-98 average) despite carrying around a third of all traffic. However, the higher average speeds on Trunk Roads result in a higher proportion of KSI casualties (18%) than for the all roads in Wales (13.5%). The casualty rate between different types of road – Motorway, dual carriageway and single carriageway varies considerably. By far the worst problems appear to be occurring on the latter.

Safety on Rural Single Carriageway Roads

8.54 Research by the Transport Research Laboratory (TRL) has concluded that the frequency of all injury collisions on rural single carriageway roads increases with:

- **The number of sharp bends (those with a chevron and/or bend warning sign):** by 13% per additional bend per kilometre (34% increase for single-vehicle collisions).
- **The number of minor crossroads junctions:** by 33% per additional crossroad junction per kilometre.
- **Average speed:** a 10% increase in mean speed results in a 26% increase in the number of injury collisions (and a much larger increase at junctions).

8.55 There are four main types of collision that cause death and serious injury:

- With vulnerable road users (i.e. pedestrians and cyclists).
- Head-on between vehicles.
- At junctions.
- With objects at the side of the road.

8.56 The Assembly Government is the highway authority directly responsible for safety improvements on the network of Trunk Roads and Motorways. The Trunk Road Safety Plan has been drafted in response to the new national targets and will be published later this year.

8.57 The Plan will put substantial emphasis on a systematic, data-led approach to the future identification of collision and casualty sites and the development of remedial measures on a route-by-route basis. This systematic route action approach, with treatment of specific accident sites identified along the route, is the most effective way of reducing casualties through local safety schemes.

8.58 Searches of the Stats19 database for routes with specific accident frequency levels will take place at intervals of not more than three months, so that both the work programme and the selection criteria are kept under review. The criteria can then be adjusted if experience shows that the sites selected are not particularly amenable to treatment. The prioritisation of this programme will be based on the longer-term accident record at each site, for example over a five-year period.

8.59 In the more rural areas, route studies will be undertaken in relation to the traffic volumes. For those routes, which exceed the average collision and casualty rate for the type of road, these averages will form target rates to be achieved through the implementation of route treatment and the identification of site-specific remedial measures.

8.60 Each individual scheme will be supported by a targeted publicity and enforcement campaign at a local level. These campaigns will:

- Publicise the poor safety record along routes and at specific locations.
- Highlight the rationale for particular local safety schemes.
- Emphasise that road user behaviour is the main cause of collisions and casualties and that remedial schemes will only deliver benefits if accompanied by better driving standards.
- Target continuing instances of irresponsible driver behaviour – excessive and inappropriate speed, drink driving, use of mobile telephones etc.

8.61 Such campaigns will require the support of the local authority and Community Council. Campaigns will use all available media such as newsletters, notice boards, leaflets and web sites.

8.62 The Trunk Road Safety Plan will be reviewed annually. This annual review will also consider progress on the various priorities set by the Plan, particularly concerning site and route investigations and the local safety scheme programme.

8.63 There are a number of individual initiatives that make up the Trunk Road Safety Plan full details will be available when the plan is published. For the purposes of inclusion in this strategy the key actions are shown below:

Local Safety Schemes

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Plan to complete an average of 20 local safety schemes every year or as may be required up to 2010	Welsh Assembly Government	✓	✓

Road Schemes

8.64 The *Trunk Road Forward Programme*⁶ details the major new road construction and improvement schemes (costing over £1 million) to be undertaken. A substantial part of the benefits arising from these schemes, and indeed part of their justification, relates to the collision and casualty reduction that they will be expected to achieve as a result of modern design standards.

8.65 Planned schemes costing less than £1 million cover a wide range of improvements. While the primary purpose of these schemes may not be casualty reduction, much of the work does have a substantial road safety element to it and certainly some casualty reductions will be achieved.

Maintenance and Resurfacing

8.66 Routine maintenance and resurfacing of the highway and associated features such as signs, markings and street furniture will have a beneficial effect, principally by preventing accidents and casualties from occurring at all. Some casualty reduction can be expected, and maintenance is therefore an integral part of the Trunk Road Safety Plan.

Making Better Use (MBU) of Existing Roads

8.67 Whilst the Assembly Government will continue to have a targeted Trunk Road Improvement programme, it must be recognised that safety must also be improved by making better use (MBU) of the **existing** highway infrastructure. This is particularly true on the busiest sections of dual carriageway Trunk Road and Motorway – the M4, the A55 and the A470.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Develop and implement practical schemes to make better use of the M4 motorway and A470, A494 and A550 Trunk Roads.	Welsh Assembly Government	✓	

Road Markings

8.68 Road markings are a basic safety measure – ensuring that drivers keep in the correct lane or on the correct side of the road and that they correctly position their vehicles at junctions.

8.69 A survey by the Road Safety Markings Association (RSMA) tested a representative sample of 1,000 kilometres of road in England and Scotland against a new European standard for "retro reflectivity" (a measure of visibility to drivers). This revealed that the following percentages of road classes failed to meet European safety standards:

- 44% of single-carriageway A-roads.
- 39% of motorways.
- 38% of dual-carriageway A-roads.

8.70 The RSMA concludes that the poor visibility of road markings is putting lives at risk – by hindering driver visibility and positioning of the vehicle - leading to more shunt and head-on collisions between vehicles.

8.71 The standard of road markings in Wales has not been assessed but it is reasonable to assume it is similar to that found in the study.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Undertake a sample survey of road marking reflectivity.	Local Authorities Welsh Assembly Government	✓	

Road Signs

8.72 Road signs are an integral part of any road safety strategy – giving commands, warnings, advice and directions to both motor vehicle users and others. However, in some instances there is a danger that signs can possibly compromise road safety.

Proliferation of Signs

8.73 Whilst the purpose of a sign is to get the attention of the driver, care has to be taken to ensure that signs do not become too much of a distraction – with the result that people take their eyes off the road and lose concentration. In recent years, the number of signs on the road, and the information contained on each sign, has increased significantly. This is at least partly the result of allowing the brown tourist destination signs to be sited on roads and as part of conventional direction signs. In addition, each sign can represent an additional hazard for motor vehicles that is present at the side of the road.

8.74 The proliferation of signs can also reduce their effectiveness as a safety measure – by overloading the road user with information and breeding excessive familiarity. There is no hard evidence of how many collisions could have distraction, as the result of a sign, as a contributory factor. Nevertheless, there is a need for highway authorities to be very careful when planning signing over the network as a whole.

Sign Maintenance

8.75 Some road signs are poorly maintained, covered by vegetation (or other obstructions) or even missing altogether. It is important to ensure that if a sign is to be noticed and acted upon by road users, then it is clearly visible.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
A review of the existing signing should be undertaken by highway authorities.	Welsh Assembly Government Local Authorities	✓	

1 The safety of fleet car drivers: a review (TRL Report 390, 1999). More details from <http://www.trl.co.uk/>

2 Report on Motoring (RAC, 2001). Summaries of this annual survey are available at <http://www.rac.co.uk/>

3 Reducing at-work road traffic incidents (Health and Safety Executive, November 2001) available at <http://www.hse.gov.uk/>

4 See <http://www.dft.gov.uk/roadsafety/index.htm> and road safety research report 21 and 22. Also the Sleep Research Centre, Loughborough University at <http://www.lboro.ac.uk/department/hu/groups/sleep>

5 Better Health, Better Wales (National Assembly for Wales). Available at <http://www.wales.gov.uk>

6 Trunk Road Forward Programme (Welsh Assembly Government, March 2002). Available from Transport Directorate, Welsh Assembly Government, Cathays Park, Cardiff CF10 3NQ or <http://www.wales.gov.uk/>

9. Safety for Motorcyclists

Introduction

9.1 Motorcycling is often perceived to be the most vulnerable of all the transport modes - a combination of the fact that motorcyclists ride on only two wheels, the lack of rider protection from any metal bodywork and the potential of these vehicles to reach high speeds.

9.2 This vulnerability has, in the past, been one of the reasons why motorcycling has been neglected by policy makers as a mode of transport. However, the growth of urban traffic congestion and the realisation that motorcycles offer a flexible and efficient means of transport has led to an increase in usage in recent years. This chapter sets out how we intend to promote motorcycle safety.

Key Facts on Motorcycling in Wales

Table 9.1: Trends in Motorcyclist Casualties in Wales (1981-85 to 2000)

Age Group	Casualty Severity	Casualties (1981-85 average)	Casualties (2000)	Percentage Change
0-15	KSI	10	8	-20
	All	28	17	-39
16-19	KSI	423	30	-93
	All	1,269	133	-90
20-24	KSI	247	24	-90
	All	688	84	-88
25-29	KSI	84	46	-45
	All	217	121	-44
30-39	KSI	70	106	52
	All	191	261	37
40-49	KSI	33	54	63
	All	95	122	28
50-59	KSI	18	26	43
	All	54	62	15
60+	KSI	13	5	-61
	All	32	14	-56
All	KSI	898	299	-67
	All	2,573	815	-68

- There has been a two-thirds decline in the number of motorcyclist casualties between 1981-85 and 2000. This can partly be explained by a decline of 29% in travel by motorcycle since 1986 although more recently there has been a large increase in registrations in the UK as a whole (a 226 % increase since 1993).
- The 16 to 19 age group is most at risk of being a motorcyclist casualty, although the rate has declined significantly since the early to mid 1980s.

- **In contrast to all the other age groups, the casualty rate is growing among people in the 30-59 age range.**

Table 9.2: Motorcyclist Casualty Numbers by Road Area (1994-98 Average)

Casualty	Built-up		Non-Built Up		Motorway	
	Number	%	Number	%	Number	%
KSI	109	22	142	53	2	58
Slight	332	78	192	47	5	42
Total	441	100	334	100	7	100

- **Over twice as many motorcyclist KSI casualties occurred on roads in non built-up areas – a reflection of the greater speeds when a collision occurs. In total, there are more casualties on built-up roads but a higher proportion of these result in slight injuries.**

Strategy Objectives

- To significantly reduce casualties involving motorcyclists – especially deaths and serious injuries.
- To improve the standard of riding in Wales across all age groups.
- To address the problem of motorcycle casualties on rural roads.
- To target the at risk age groups as a key area for improvement in road safety.
- To improve the condition of the road surface – especially on routes heavily used by motorcyclists.

Strategy

Patterns and Causes of Motorcycle Casualties

9.3 Considerable concern has been expressed by local authorities, communities and road users about the number of motorcycles that are being ridden at weekends and on Bank Holidays - at very high speeds. Table 9.2 above shows that the number of KSI motorcycle casualties in rural areas is double that in urban areas, despite the fact that the total number of casualties is broadly similar between the two. An analysis of casualties by local authority highlights the problem in rural areas:

Table 9.3: Motorcyclist Casualties by Unitary Authority (1994-98 Average)

Local Authority	KSI Casualties	Slight Casualties	All Casualties
Powys	31	29	61
Carmarthenshire	20	32	52
Monmouthshire	19	22	41
Flintshire	18	42	59
Gwynedd	18	26	44
Denbighshire	17	34	51
Pembrokeshire	13	22	35
Conwy	12	28	40
Wrexham	12	26	38
Cardiff	11	42	53
Ceredigion	11	12	23
Newport	11	21	31
Rhondda Cynon Taff	10	24	34
Isle of Anglesey	8	12	20
Swansea	7	46	54
Neath Port Talbot	6	29	35
Vale of Glamorgan	6	15	22
Bridgend	5	23	28
Caerphilly	5	20	25
Torfaen	5	10	16
Blaenau Gwent	5	6	11
Merthyr Tydfil	2	7	9
All Wales	253	529	782

9.4 Collisions in rural areas often involve only the motorcycle and are often the result of riders carrying out dangerous behaviour – such as speeding around bends and overtaking on single-carriageway roads. Analysis of collisions in Cheshire concluded that 67% were as a result of rider error, with crashes on bends and as a result of overtaking a significant factor. Similar studies of motorcycle collisions need to be undertaken in Wales – including information on the home location of the rider(s) involved.

9.5 General concern about rider behaviour has led to a number of enforcement campaigns with Police using helicopters to track motorcyclists riding at high speed on country roads in Wales. The safety camera "netting off" project will have an impact on motorcyclists riding at excessive and inappropriate speed in the areas targeted and consideration could be given to extending the number of camera sites to known "motorcyclist danger zones". However, there is a concern that a proportion of irresponsible riders, knowing where the camera sites are located, will continue to treat Welsh Roads as a race track.

9.6 In urban areas in particular, motorcyclists are more likely to be involved in a collision with other road users, both motor vehicles and pedestrians.

9.7 There may also be a problem with young and inexperienced riders in urban areas, who lack additional training once they have passed the basic motorcycle test and are less able to control their machines when presented with the wide range of hazards in urban areas. These riders are much more likely to be using a machine for utility purposes – in particular during the course of work. A number

of service related industries, such as message/parcel couriers and pizza delivery operations, have taken advantage of the fact that motorcycles are able to move through congested traffic areas and can therefore minimise urban journey times.

9.8 The DfT is currently undertaking a number of research projects on motorcyclist safety:

- Analysis of Police fatal motorcyclist accident (i.e. collision) reports.
- An in depth study of motorcycle accidents (collisions).
- The older motorcyclist.
- A scoping study on motorcycle training.

9.9 As results of these studies become available, we will use the conclusions to inform our responses to achieve safety improvements for motorcyclists.

9.10 Safety improvements can best be achieved if the motorcycle is actively promoted as a safe, efficient and environmentally friendly form of travel. To this end a sub group of the Welsh Transport Forum has been set up to develop a strategy for motorcycling which will address the following issues:

- Safety;
- Environmental impact;
- Traffic management;
- Parking and theft;
- Leisure and tourism.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Study of motorcyclist collisions and casualties in rural and urban areas in consultation with user groups.	Welsh Assembly Government Welsh Road Safety Forum Local Authorities NHS Trusts	✓	
Produce Welsh Strategy for motorcycling.	Welsh Transport Forum Welsh Assembly Government	✓	

Visibility and Awareness

9.11 A significant number of collisions could be attributed to motor vehicle drivers and pedestrians not seeing a motorcyclist – especially in urban areas where traffic levels are very much higher. The DfT have initiated a TV, radio and poster campaign to raise awareness of "blind spot" collisions where motorcyclists travelling on the outside of the traffic stream hit a motor vehicle turning right off a main road. We will continue to support such campaigns in Wales.

9.12 The tendency of riders to wear black leathers makes them much more difficult to see – especially at night – and the wearing of high visibility clothing would make it much easier for other road users to be aware of motorcyclist presence. However a motorcyclist is only a third of the width of a car and

therefore other road users need to be much more alert and observant in order to see the motorcyclist at all. A large proportion of collisions occur when motor vehicles emerge from a side road and fail to observe a motorcycle on the main road. The fact that motorcycles can travel much faster than bicycles also means that reaction times for other motor vehicle drivers are a lot less.



Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Promote high visibility clothing.	Motorcycle groups Retailers	✓	
Develop road user awareness publicity campaign in urban areas.	Welsh Assembly Government		✓

Education and Training of Motorcyclists

9.13 *Bike Safe Cymru*, a post-test training initiative already available to motorcyclists, is run in partnership by the four Welsh Police forces, local authority Road Safety Officers (RSO)'s and the Road Safety Council of Wales (RoSCoW).

9.14 There is a concern, however, that there are, in effect, variations between the Bike Safe initiative across Wales and that the involvement of RSOs and RoSCoW is sometimes minimal. This lack of consistency means that the level of service (in terms of both the availability and quality of training) varies throughout Wales.

9.15 The initiative is currently heavily reliant on the dedication and commitment of a few individual Police Officers. The base of motorcycle trainers available needs to be broadened whilst ensuring that only highly skilled and appropriately qualified personnel are used.

9.16 As with all voluntary training initiatives, the problem is that the participants are usually the more responsible motorcycle riders who are less likely to be involved in a collision in the first place. The result has been that in casualty reduction terms, the initiative appears to have had little impact. There is a need

to target high-risk target groups who would not otherwise consider undertaking additional training. This is most likely to occur if financial incentives are provided, for instance through reduced insurance premiums. There is also the opportunity to use training courses as part of a rehabilitation scheme for riders convicted of safety-related convictions.

Action Programme

Transport Planning and Highway Engineering

9.17 Motorcyclists are not always considered as a separate group of road users and as a result have sometimes been neglected by policy makers and highway

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Continue promotion of <i>Bike Safe Cymru</i> .	Police forces Motorcycle groups Employers	✓	
Set up and promote an approved training scheme register.	Police forces Welsh Assembly Government Motorcycle groups	✓	
Liaison with insurance companies to explore the promotion of discounts on premiums for riders who undertake additional training.	Welsh Assembly Government Insurance companies		✓

engineers. As an example, motorcyclists are not identified as a separate group of vulnerable road users by the Institution of Highway Engineers (IHT) *Guidelines for the Safety Audit of Highways*. This is despite the fact that many aspects of safety audits (such as visibility, impact protection and junction layouts) obviously apply to the risks experienced by motorcyclists. There is no dedicated motorcycle audit procedure, which considers highway and traffic management schemes from a motorcycle user's perspective.

9.18 Apart from good visibility, there are two priority design features that can give motorcyclists protection from motor vehicle traffic:

- Bus lanes.
- Advanced stop lines at traffic signals.

9.19 The use of bus lanes by motorcyclists should reduce the potential side impact collisions with other motorised road users by placing these users in a lane which has much less traffic. Motorcyclists are already allowed to use bus lanes in some areas and we will be seeking evidence of a positive effect on motorcyclist road safety from local authorities.

9.20 Advanced stop lines (ASLs) at signals would increase the visibility of motorcyclists and hence reduce their vulnerability. ASL use is currently only permitted by cyclists and there are some concerns that use by motorcyclists would be dangerous – due to the need for access by travelling inside the main traffic stream. While there is no firm evidence of any safety problem, we will consider this as part of the Motorcycle Strategy.

Action Programme

Action	Lead Partner(s)	2003 - 2005	2006 - 2010
Safety audits should consider the impact on motorcyclists as a distinct user group.	Local Authorities Welsh Assembly Government	✓	