

Beyond 2010 Taking Stock and Moving Forward

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EXECUTIVE SUMMARY

Context

- 1 **Tomorrow's Roads – Safer for Everyone**, was published on March 1st 2000. The strategy set out new casualty reduction targets to 2010, determined the key partners, identified ten road safety themes and outlined the link between road safety and a wider range of societal concerns.
- 2 To mark the anniversary, the Parliamentary Advisory Council for Transport Safety (PACTS) has published this report to provide an evaluation of road safety in Great Britain ten years on. Using a model inspired by the European Transport Safety Council (ETSC) PIN reports¹ and building on findings from the two Three Year Strategy Reviews published by the Department for Transport^{2,3}, this report centres on four key strands:
 - **Tomorrow's Roads** has provided direction for road safety in Great Britain: consolidating focus; helping to achieve political and public buy-in; and generating challenging but achievable casualty reduction targets.
 - Casualty reduction targets for Great Britain, set out in **Tomorrow's Roads**, had already been met by the end of 2008 and the achievement should be recognised, but so too should the disparities, inequalities and difficulties within road safety today.
 - Casualty reduction has not been consistent across user profile, type, behaviour or location. Additionally, the DfT have acknowledged that the STATS 19 data source is not a complete record of all injury collisions. There may also be divergences in data quality across different areas and user types.
 - The next strategy needs to combine headline targets and high-level strategy approaches with structures which allow road safety delivery partners to establish more sophisticated internal targets and provide research and guidance to support them.
- 3 Using available data and consulting with road safety delivery partners, PACTS has been able to assess road safety in Great Britain over the last ten years and generate a set of recommendations for the approach over the next decade.

Taking Stock - Tomorrow's Roads

- 4 Research found widespread support for the role which the **Tomorrow's Roads** strategy has played over the last ten years. The strategy provided the headline casualty reduction targets of 40 per cent reduction in overall numbers of people Killed and Seriously Injured (KSI), 50 per cent reduction in child KSI and 10 per cent reduction in the slight casualty rate and encouraged specific efforts on ten key themes.
- 5 **Tomorrow's Roads** was well intentioned, comprehensible, feasible and relevant. Delivery partners found that it helped to generate support for road safety within the wider context of their respective areas of work.

Casualty Reduction to 2010

- 6 The most recently confirmed figures from DfT show that all targets have already been met. This achievement can be attributed to the efforts of the wide road safety community and should be recognised as a significant, collaborative success.
- 7 However, the reductions achieved have differed across GB, with some of our road users at much higher risk of being killed or seriously injured than others. Many of those users are easily identifiable. This report builds on conclusions made in current research, highlighting the augmented degree of risk to certain user profiles (young people, the elderly, males, people from deprived and ethnic minority backgrounds) user types (motorcyclists, pedal cyclists) user behaviours (drink/drug driving, speeding, non wearing of seatbelts) and user locations (both rural and urban).
- 8 Casualty reduction mapping or benchmarking in this way generated a role for more sophisticated methods of comparison between the various types of road safety delivery body. Based on what is already known about disparities in road risk for certain road users and on research which identifies links between wider socio-economic circumstances and road safety, this report looked to identify areas of similar context from which more targeted comparisons could be made.
- 9 Using Home Office Police performance tools as a base, we selected three area groupings to use as examples of the benefits to be drawn when comparing like with like. The three area groupings selected were Metropolitan County Areas, Predominantly Rural Areas and the Central Shire Areas. London, Wales and Scotland were also separately viewed as larger area or national groupings.
- 10 The comparison of areas with like circumstances proved a useful way to identify similar circumstances and the related links to road safety. In the Metropolitan County Areas for example, deprivation appeared to be hindering the pace of casualty reduction, whilst in London, the Active Travel agenda combined with other circumstances, appeared to be making actual number of cyclist injuries rise. The comparisons provided an evidence base from which collaborative approaches to specific road safety issues could be envisaged.
- 11 Notwithstanding the benefits of headline casualty reduction targets for Great Britain, the separation of area groups underlined the need for more sophisticated, non-general targets at the local levels so that road safety delivery partners can focus on the specific issues which will make the greatest contribution to casualty reduction in their area. In the Central Shire Areas, for example, this could be a stretched target to reduce KSI in young car occupants by 60 per cent.
- 12 The use of area groupings also highlighted the potential for economies of scale through shared research funding, shared knowledge and good practice guidance and shared funding for ETP measures.

Looking Forward - A Safer Way

- 13 Local Highway Authorities and their casualty reduction partners need to take on 'smarter' working processes. A more rigorous approach to evaluation, a clearer focus on evidence-led working through improved data analysis and more joined-up working between partners and across organisations will help to further road safety efforts over the course of the next strategy.
- 14 Based on the significant disparity of casualty reduction across GB, it is hoped that the DfT look more closely at minimising road risk through the application of more sophisticated targets, guidance, research and funding to road safety delivery partners by area-type or by region where applicable.
- 15 PACTS would like to see DfT taking a more delivery-based focus, working more closely with their road safety partners at the local level to provide consistent funding streams and to bridge the gap between academics and practitioners.
- 16 DfT should lead by example, outlining and demonstrating the benefits of closer joined-up working, working more closely with their colleagues across government to ensure that road safety becomes confirmed within the public health agenda. Good practice guidance should be offered to those at the local level, identifying ways in to communities and options for closer working with Primary Care Trusts (PCTS), schools, fleet managers and, in many cases, Police Forces and Fire Services.
- 17 The DfT should acknowledge the lack of reference to road safety within Local Transport Plan (LTP) guidance and more effectively communicate the link with **Advice about Local Road Safety Strategies**.⁴ This will provide Local Highway Authorities with some tangible assistance about what to include. There is a concern that safety relevance will be minimised if this step is not taken.
- 18 In the consultation for **A Safer Way**, the DfT indicated a high-level document which it is hoped would be legible and usable to those stakeholders who have less experience of road safety. However, the consultation did not provide any indication of delivery plans. It is hoped that the final strategy will either contain, or be accompanied by, a toolkit for all road safety partners and an outline of DfT's specific commitment to casualty reduction over at least the next ten years.

INTRODUCTION

The Focus of This Report

- 1.1 The road safety strategy **Tomorrow's Roads – Safer for Everyone**⁵ was launched on March 1st 2000, providing a strategy and setting new casualty reduction targets to follow those set in 1987. **Tomorrow's Roads** determined the key partners involved in casualty reduction and their responsibilities, identified a number of themes to work on and outlined the link between road safety and a wider range of societal concerns.
- 1.2 In 2004 and 2007, The Department for Transport (DfT) published the first and second three year reviews of the strategy. These reviews were particularly well received among road safety professionals.
- 1.3 On the decade anniversary of the strategy, it is important to take stock. This report will look back at road safety performance over the last decade, recognizing areas of success and identifying the obstacles, before projecting onto the next strategy term.
- 1.4 Data and research commissioned by DfT and others shows vast inequalities in road risk and of casualty reductions across Great Britain. Building on benchmarking tools developed by the Home Office to measure police performance, this report has selected three area-type groupings in order to demonstrate the specific road safety risks which are particular to area types and which are likely to relate to wider socio-economic conditions.
- 1.5 Based on findings related to casualty reductions over the last ten years, recommendations have been made as to the role and direction of the next strategy. It is hoped that in addition to the headline targets and vision for Great Britain as a whole, A Safer Way will outline possibilities for more sophisticated area-type of regional targets which can better contribute to casualty reduction in certain areas.
- 1.6 Looking forward to the next ten years, this report will consider the role of the new strategy and targets and the various tools required to support them and outline the spectrum of stakeholders and partners which need to be involved in casualty reduction. This report makes recommendations to parliamentarians, government and a wide range of other responsible bodies in the hope that our vision to have the **safest road users in the world** is realised.⁶
- 1.7 A characteristic of future casualty reduction activity will be that more safety critical decisions will be made by more people; transport safety no longer stands in isolation, but is integrated into so many other areas – not only our right and need for mobility, but in the areas of sustainable environmental issues, our individual and national health, social inclusion and urban regeneration. With the current interest in the 'green agenda' and widespread concern about health and obesity, safety articulated only as an end in itself, rather than as a tool to assist in achieving a healthier and more sustainable lifestyle, may be eclipsed. This will require a more holistic view of transport safety and the active involvement of, in particular, non-traditional road safety players at the same time as retaining the core group of trainers, engineers and police officers.

The Parliamentary Advisory Council for Transport Safety

- 1.8 Formed in 1982, The Parliamentary Advisory Council for Transport Safety (PACTS) was established following the successful campaign for the compulsory use of seat belts in the front of vehicles. Its charitable objective is **"To protect human life through the promotion of transport safety for the public benefit"**.
- 1.9 Our sister organisation, the European Transport Safety Council (ETSC) is a Brussels-based independent non-profit making organisation dedicated to reducing the number and severity of transport injury collisions in Europe. The ETSC provide an impartial source of expert advice on transport safety matters to the European Commission, the European Parliament, and Member States.
- 1.10 To inform our work we have five working parties made up of experts and those who work in the sector. PACTS work aims to be at the forefront of shaping policy development in transport safety in order to be a strong advocate for research-based change and to take the lead in advocating the integration of transport safety considerations across the breadth of relevant policy development.

Methodology

- 1.11 This research has been conducted in three stages. The first stage involved a quantitative analysis of governmental, societal, transport and road safety statistics. This stage analysed trends and highlighted key issues which were to be picked up on later on in the work.
- 1.12 A second stage picked up on conclusions made from data and asked the why, where and how questions. Taking a largely qualitative approach, research involved interviews and discussion with practitioners, councillors, police, the fire service, road safety officers, highway managers, civil servants and so on. A list of the organisations which contributed to the body of research can be found in Appendix 2. We are grateful to all those involved in the research process although we do stress that conclusions and recommendations were formed internally and are not necessarily supported by all those we spoke to.
- 1.13 Having identified the more subtle nuances in road safety today, a third stage attempted to draw together a body of research which PACTS and other organisations have contributed to, identifying the wider range and roles of stakeholders and moving road safety into the wider areas of public policy.

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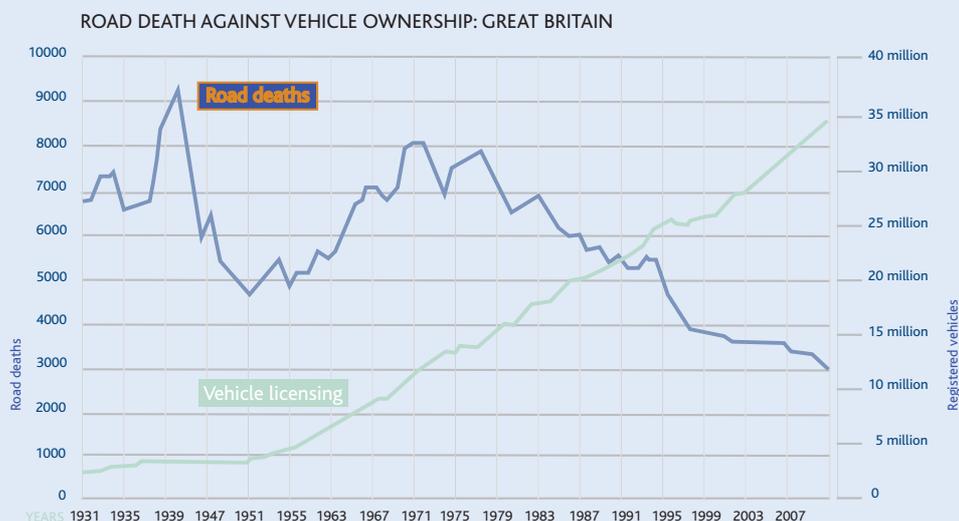
TAKING STOCK: TOMORROW'S ROADS

This chapter:

- Gives the context behind the Tomorrow's Road Strategy.
- Summarises Tomorrow's Roads targets and key themes.
- Gives a user perspective on the strategy.
- Uses the information gathered to make recommendations to government relevant to the next strategy.

Context

- 2.1 In the twenty years since the first road safety targets were set, road death in Great Britain has dropped by 43 per cent despite a 54 per cent increase in the number of vehicles registered. It is apparent that the targets have made a significant impact on casualty reduction through generating political and public support and buy-in and creating awareness of road safety issues. The targets have helped to position road safety within the wider agendas of local and national government.
- 2.2 The chart below shows the negative correlation between road death and car ownership in Great Britain since the first targets were set 23 years ago.^{7 and 8}



- 2.3 The data shown in the table above point towards sustained casualty reduction and indicate the existence of a population aware of risk on the roads. It is likely that the work of safety professionals over the last two decades has generated a safety climate, a legacy which should be encouraged to thrive and develop into a road safety culture Beyond 2010.
- 2.4 The last strategy, **Tomorrow's Roads - Safer for Everyone**⁹, was widely well-received by those working in the field. It is important to review the success of the strategy at this decade anniversary both in terms of casualty reduction and in terms of approach and delivery. Analysing road safety performance over the last ten years has helped to identify the approaches which should be taken forward and to recognize the gaps and weaknesses which need to be improved.

Tomorrow's Roads - Safer for Everyone : The Strategy and Targets

- 2.5** In 1987 a target was set to reduce road casualties by one-third by 2000 compared with the average for 1981-85. This target was achieved for deaths and serious injuries by 2000, with road deaths having fallen by 39 per cent and serious injuries by 45 per cent. In March 2000, **Tomorrow's Roads – Safer for Everyone**¹⁰ set new targets to:
- Reduce the number of people killed or seriously injured in road accidents by 40 per cent
 - Reduce the number of children killed or seriously injured in road accidents by 50 per cent
 - Reduce the slight casualty rate, expressed as the number of people slightly injured per 100 million vehicle kilometres by 10 per cent.
- 2.6** The Targets were incorporated within the larger strategy document which alongside the Local Transport Plan Process and other target setting documents has helped to further the road safety culture in Great Britain today. Interviews conducted for this report have shown unanimous support for **Tomorrow's Roads**, which used the evidence base available to highlight key areas of concern and identify the range of stakeholders and partners responsible for achieving the casualty reduction targets.
- 2.7** **Tomorrow's Roads** had a very useable format. The introduction clarified the strategy, targets, timescales and the partners required to carry it out and then focussed on ten key themes, each of which was expounded with a summary of the strategy, the background information and the action plan.
- 2.8** The ten themes were:
- Safe for Children
 - Safer Drivers – Training and Testing
 - Safer Drivers – Drink, Drugs and Drowsiness
 - Safer Infrastructure
 - Safer Speeds
 - Safer Vehicles
 - Safer Motorcycling
 - Safety for Pedestrians, Cyclists and Horse riders
 - Better Enforcement
 - Promoting Safer Road Use
- 2.8** Within each of the ten themes, The DfT stated what government would do, indicated the range of partners which could be involved, highlighted current, past or future trials and research in the area, highlighted good practice and developed a plan to take forward.
- 2.10** The main partners identified in the casualty reduction strategy were:
- Government, its Agencies and the devolved administrations in Scotland and Wales. Northern Ireland will have its own road safety strategy
 - Local Authorities
 - Police Forces
 - Voluntary groups and road user associations
 - Motor Manufacturers
 - Individual road users - drivers, motorcyclists, cyclists and pedestrians.

- 2.11 Early proposals for cross-governmental thinking and action were also considered. The table was used by DfT to identify a number of policy areas and bodies within them which could or which should contribute towards casualty reduction on the roads, either as a benefit to their internal targets or as part of wider societal benefit gain.

HEALTH

Reducing road accidents will help achieve the Government's overall target to cut accidents from all causes, set out in the Saving Lives: Our Healthier Nation White Paper.

A pan-Government strategy to tackle alcohol misuse in England is also being developed.

A priority area for that strategy is likely to be addressing issues concerned with all aspects of improving community safety, including road safety. It is planned to publish the new strategy early in 2000. The Scottish Executive has established a committee to develop a new national alcohol misuse strategy for Scotland.

ENVIRONMENT

Reducing speed and managing traffic better helps wider environmental objectives as well as road safety, for example by cutting CO2 and other emissions and reducing noise.

EDUCATION

Effective road safety education will help to improve our child road safety record.

SOCIAL INCLUSION

Safer roads can help build stronger communities, so improving road safety should be included in measures to regenerate urban areas and marginalised communities.

Deprived areas have relatively poor road safety records.

FIGHTING CRIME

tackling road crime such as speeding and dangerous driving is an important part of the wider crime reduction agenda.

EUROPE

We need to work closely with our partners in Europe on road safety issues, as most standards for vehicle safety and increasingly licensing qualifications are determined at European Union level.

INTERNATIONAL DEVELOPMENT

Britain's good road safety record means that we can offer other countries our expertise on road design and vehicle safety and road safety policies.

- 2.12 With hindsight, it is possible to identify a number of areas in the overall approach where government could have gone further or designed more rigorous action plans. However, as a new type of strategy, **Tomorrow's Roads** was well intentioned, comprehensible, acceptable, feasible and relevant.
- 2.13 As part of the **Tomorrow's Roads** strategy, government committed to evaluating progress on the strategy and targets formally every three years.^{11,12} This process was designed to help identify those areas which could be done better and to help partners work more efficiently to use resources. A child road safety plan was implemented in 2003 to specifically address the attainment of the 50 per cent child KSI target.¹³ A Road Safety Advisory Panel which included 32 representatives of the main stakeholders was set up.¹⁴ The panel however has not met since December 2006.
- 2.14 In the Second Three Year Review, the DfT estimated that the new strategy would be published in spring/summer 2009 following extensive consultation. The new strategy was consulted on over the course of 2009 and various reasons have led to its postponement. As the road safety community prepare to embark on the next strategy to 2020 and to work towards a new set of casualty reduction targets, it is important that an independent review takes place.

Tomorrow's Roads - Safer for Everyone : A User Perspective

Local Highway Authorities

- 2.15** Research undertaken for this report found a high level of satisfaction with the **Tomorrow's Roads** strategy among all users. A number of key points were regularly raised during interviews conducted in person, by email or by phone. The majority of comments in this list came up in every interview conducted.

Tomorrow's Roads

- Helped to give road safety a focus and a purpose within wider Local Authority priorities.
- Helped to generate awareness and understanding of road safety among senior managers and policy makers.
- Helped to secure more funding for road safety.
- Promoted evidence-led working, allowing the focus to be on casualty reduction not public perceptions, stopping the public and cabinet members from demanding certain road safety activities which were less effective than others.
- Helped to initiate the process of partnership working.
- Encouraged scrutiny of working processes, structures and patterns.
- Set targets which, at first, seemed impossible, but in reality were quite realistic.

- 2.16** The last road safety strategy clearly had a very positive role in the attainment of casualty reductions. It is evident that the document was clear and focused, synchronising road safety working approaches across Great Britain. **Tomorrow's Roads** was concise about the road safety areas which needed to be targeted, offering Local Highway Authorities clear directional tools. The new approach should be aware of this and ensure that the strategy Beyond 2010 continues to provide these important tools for road safety professionals within the more challenging context of today's road safety setting.

Other Local Partners

- 2.17** As outlined above, **Tomorrow's Roads** outlined a number of policy areas and bodies within them which could or which should contribute towards casualty reduction on the roads. Around the same time, Safety Camera Partnerships were being formed. The strategy played an important role in initiating and supporting partnership working in road safety.
- 2.18** In many instances, road safety partnerships are community-wide and infiltrate a range of societal and policy directions. More frequently, as a result of closer links at the national level and more direct involvement in road safety at the local level, road safety partnerships rely heavily on three main players: Local Highways Authorities; Police Services; and Fire and Rescue Services. More recently, the DfT has extended the reach of partnership funding to encourage deeper integration across local communities.¹⁵
- 2.18** At the national level, it was seen that both the Police Service and the Fire and Rescue Service had found the **Tomorrow's Roads** Strategy a useful tool for generating evidence-led support for the inclusion of road safety issues into the wider objectives of their services. The targets were useful particularly for the Police Force who in many instances appear to have taken them on in the manner that Local Authorities have across the board.

- 2.20** Representatives from the Fire Service felt that the strategy gave a central focus to the road safety community, driving partnerships and directing strategies whilst still allowing for local interpretation.
- 2.21** At the local level, some concern was raised over the effectiveness of partnership working. Although a large number of areas had strong partnerships and regular communication, in other places, one or several of the three key partners felt that casualty reduction partnerships were ineffective, non-existent or difficult to maintain. It was frequently the case that the success or not of partnership working was led by specifically interested parties in all parties.
- 2.22** Another area of query surrounds work sharing between the partners. In some places it was seen that all three partners were providing the same service. This was particularly the case with ETP measures in primary schools.
- 2.23** PACTS welcomes **E-valu-it**, the new online ETP evaluation toolkit from DfT, and hopes to see evaluation of its use in due course.
- 2.24** The next strategy should have a content and tone focus which will help to encourage a wider range of stakeholders and expand the current casualty reduction partnerships.

Recommendations from this Chapter:

- DfT to continue to provide a high-level vision and targets in combination with a practitioner-level strategy relevant to today's road safety context.
- DfT to further assist with partnership working, offering guidance to refine current procedures and to extend the stakeholder options.
- DfT to lead by example, engaging more closely with cross-departmental colleagues.

A ROAD SAFETY CLIMATE IN GREAT BRITAIN?

WHERE ARE WE TODAY?

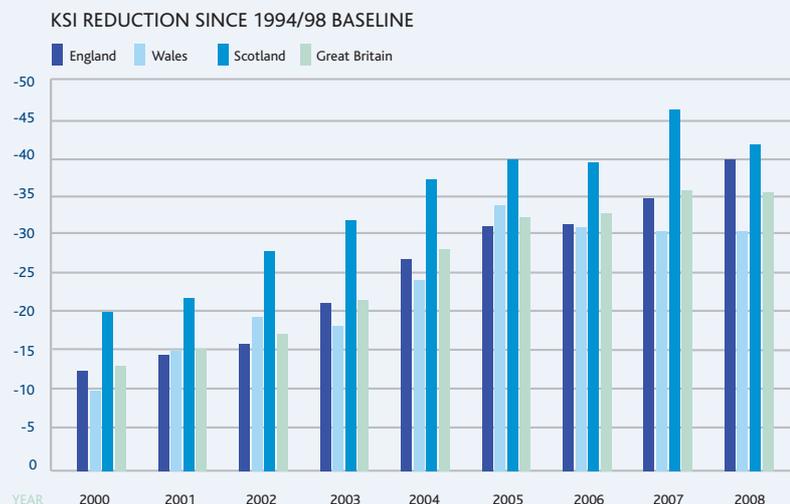
This chapter:

- Gives a general overview of casualty reductions across Great Britain since the 1994/98 baseline.
- Identifies disparities in casualty reduction by region and by user profile, user type, user behaviour and user location.
- Uses the disparities to support a move towards more complex casualty reduction comparison.
- Gives examples of some area-type groupings which could be used and identifies a number of area-type trends with probably relate to wider socio-economic circumstances.
- Makes recommendations based on findings.

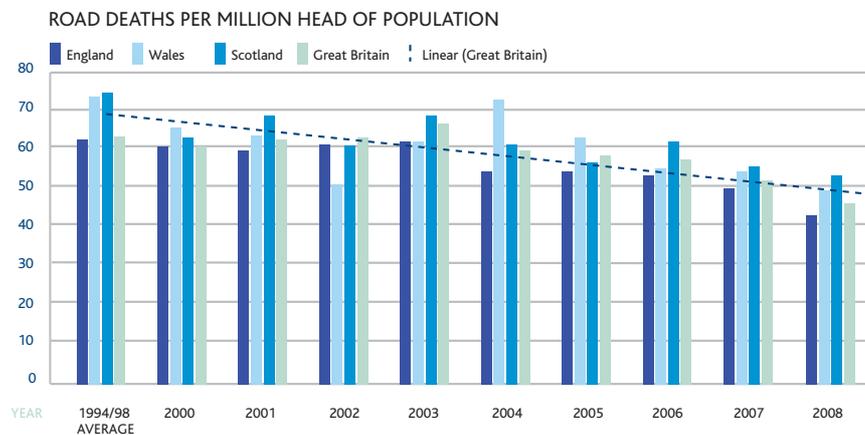
Overview

The Statistical Overview: Meeting the Targets: KSI Reduction

- 3.1 The **Tomorrow's Roads** strategy was implemented across Great Britain although the specific direction was separated out into geographical, regional and local areas. By the end of 2008, Great Britain had already reached the 40 per cent target for reducing KSI.



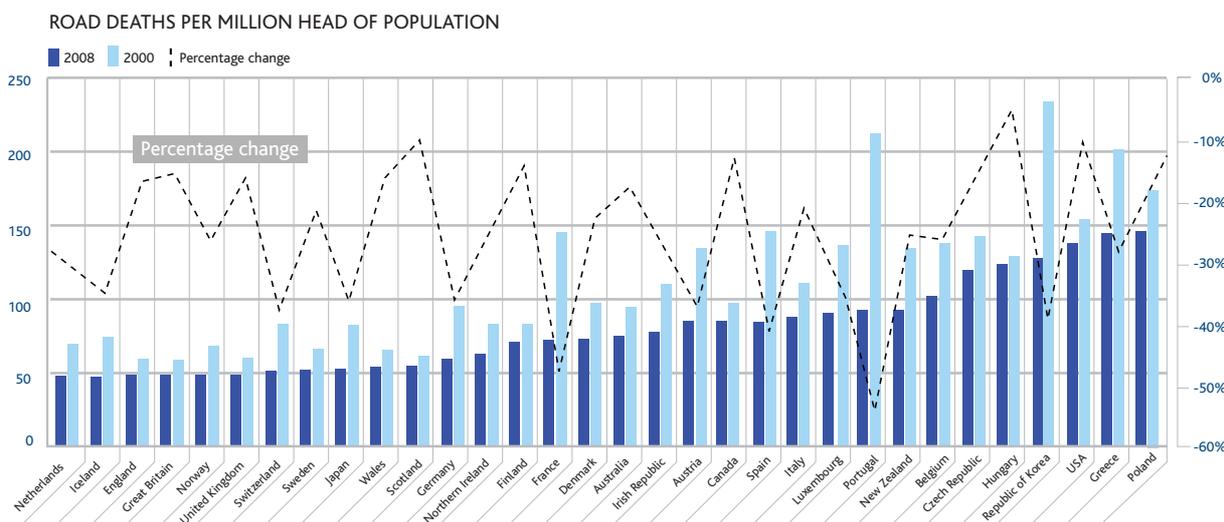
- 3.2 The chart above ¹⁶ shows a sustained and continuous reduction in KSI figures for Great Britain since the 1994/98 baseline.
- 3.3 It should be noted that over the same period Great Britain saw a growth in population of 5.5 per cent and yet road death per million head of population has fallen 30 per cent from 63 in 1994/98 to 44 in 2008. The chart overleaf plots road deaths per million head of population, showing a trend line of performance across Great Britain as a whole.



3.4 The trend line shown in the chart ^{17,18} above indicates that the significant 2008 reductions in road death were anomalous. Once 2009 data is confirmed, this will be evaluated.

3.5

Over at least the last ten years, KSI reductions have maintained Great Britain’s position as a global leader in road safety, with one of the lowest risks of road death, per million head of population, in the world. The chart below ^{19,20} gives a number of international comparisons from 2000 and 2008, showing the percentage change over that period.



3.6 On many occasions, PACTS has been asked why the KSI figures are compared with a baseline which in 2010 will be some 14 years prior. It is an important question to ask. Although not the most accurate measure for a ten year strategy, the baseline currently used is well-understood by those in road safety and provides a useful, consistent, snapshot start point from which to plot trends and generate headline figures.

The Statistical Overview: Meeting the Targets: Child KSI Reduction

3.7 In **Tomorrow’s Roads** the DfT set a separate target to reduce the number of child KSI by 50 per cent from the 1994/98 baseline. In 2008, Reported Road Casualties showed that child KSI had already fallen by 59 per cent since baseline. The table ²¹ opposite shows that the target was met across all modes and all age groups:

Category	Average 1994-98	Number 2006	2007	2008	2008 percentage change over average	
					2007 %	1994-98 %
Pedestrians	4,167	2,025	1,899	1,784	-6	-57
Pedal cyclists	1,129	503	522	417	-20	-63
Car users	1,303	596	526	490	-7	-62
Other road users	261	170	143	116	-19	-55
Males	4,202	2,107	2,007	1,818	-9	-59
Females	2,457	1,187	1,083	986	-9	-60
Age 0-4	888	378	372	347	-7	-61
Age 5-8	1,657	627	540	543	1	-67
Age 9-11	1,592	653	689	619	-10	-61
Age 12-15	2,722	1,636	1,489	1,298	-13	-52
All children	6,680	3,294	3,090	2,807	-9	-59

- 3.8** These statistics indicate very positive road safety benefits to children over the course of the Tomorrow's Roads strategy. However, these figures fail to account for the exposure rate changes as a result of modal choices made by or for children. Roger Mackett at UCL has spent some time examining the realities surrounding the motivations and barriers to active travel for children. His homepage at UCL states:

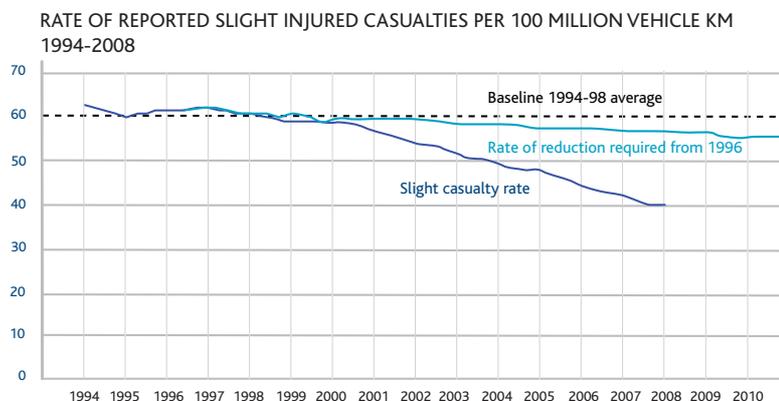
According to the **National Travel Survey**, between 1985/86 and 1995/97 children aged 16 or less increased the percentage of their trips by car from 35% to 48%. Over the same period the percentage of trips to school by car went up from 16% to 29%. These trends have led to significant decreases in the amounts of walking and cycling by children. Whilst the reasons for these shifts are fairly clear: parental concern about traffic and possible abduction, and changing lifestyles linked to increased decentralisation, it is also clear that they may lead to significant problems. As the 1998 White Paper on Transport says: 'Not walking or cycling to school means that children get much less exercise and builds in car dependency at an early age'. Whilst there is an intuitive logic to this statement, it raises a number of important research issues.

Mackett's micro site brings up the apparent conflict of interest between active and safe travel, and references a number of other important pieces of research in the area.²²

- 3.9** Despite significant reductions in child KSI, road death continues to feature highly among causes of 'accidental' death in children. Road death accounts for 60 per cent of what the DfT terms 'accidental' death in children aged 10-14. In this sense accidental can be taken to mean avoidable or non-medical.
- 3.10** Unfortunately, the target to reduce child KSI and the associated headlines fail to account for the extremely high levels of road death in young people aged 15-19. 80 per cent of accidental deaths in this age group happen on our roads.²³

A Statistical Overview: Meeting the Targets: Slight Casualty Rate Reduction

- 3.11** Progress towards the slight casualty target rate has been consistently high with all modes seeing at least a 30 per cent reduction in the slight casualty rate between 1994/98 baseline and 2008. The chart below ²⁴ shows sustained progress against the required reduction as indicated by the target.



- 3.12** There is no reason to believe that the levels of reporting of slight injuries will have decreased since the baseline data was set, although, as outlined by DfT in Reported Road Casualties Great Britain 2008 (RRCGB2008), the STATS 19 data used to inform road safety statistics fails to capture the full extent of casualties from collisions. ²⁵ It is likely that slight injuries are less well reported than other injury severities. It is therefore possible to suggest that the DfT continue to use a rate-based target for slight injuries.
- 3.13** In RRCGB2008, the DfT included an article discussing flaws in the STATS19 data collection which fail to capture the entire road casualty picture. It is likely that data becomes more accurate with severity and that some locations will have more reliable data than others.
- 3.14** Based on population samples from the National Travel Survey combined with STATS19, the DfT have estimated that there may be up to 80,000 serious injuries per year, more than three times the official figure. ²⁶ For slight injuries, the margin of error is likely to be higher. That said, STATS19 and RRCGB do provide reliable trend data and are the most reliable and consistent source from which road safety patterns can emerge.

Monitoring performance

- 3.15** In the two three year reviews of the Tomorrow's Roads strategy, the DfT outlined the progress made within each theme area. These documents should be referred to for a thorough analysis of progress made up to 2007 ^{27,28}. TRL was commissioned to monitor progress towards the targets up to 2005. This process was continued with the most recent data analysis done for 2007. ²⁹ Over the latter part of this decade the qualitative standard of Reported Road Casualties Great Britain has improved to the extent that it can be considered as an annual progress monitor from DfT.

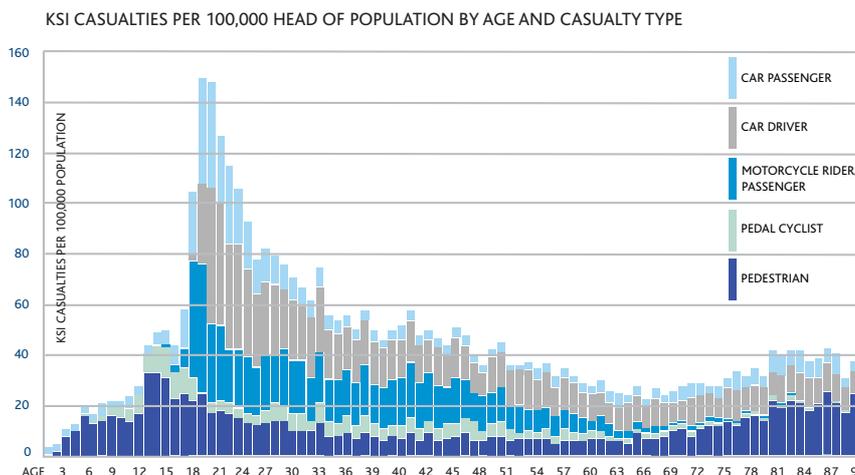
- 3.16** TRL's casualty forecasting from 2005 explicitly highlighted the role which improved vehicle design played in casualty reduction post 2000 and is expected to continue to play.³⁰ Improvements in secondary safety measures such as wider use of airbags and improved vehicle structure combined with the trickle-down effect of a prosperous economy helped to massively reduce the number of car occupants being killed or seriously injured.³¹ As primary safety measures take on new research significance, it is important that secondary safety measures be constantly supported and updated, and that sufficient funding is provided in order to establish which technologies provide the greatest safety benefit to users.
- 3.17** **Tomorrow's Roads** helped to ensure political and public buy-in to road safety messages. The successes experienced as a result of that strategy and the work associated with and additional to it should not be translated into 'a battle won' but rather 'a battle begun'. The Department for Transport is acutely aware of the issues which pose the greatest hurdles to improving road safety at the GB level. The local picture is quite different and requires specific analysis as discussed below, but it is important to take a unified approach on matters, behaviours and environments which continue to feature heavily in road casualty statistics across Great Britain.
- 3.18** For the sake of the section below it has been assumed that those measures which have made significant contribution to casualty reduction, such as vehicle design and road safety engineering, will continue to be developed. The section below looks specifically at user profile (age, gender, socio-economic status and so on), user type (cyclists, P2W and so on), user Behaviours (drink-drive, speeding and so on) where injury inequality has been evident over at least the course of the last decade.

Road Safety Hurdles

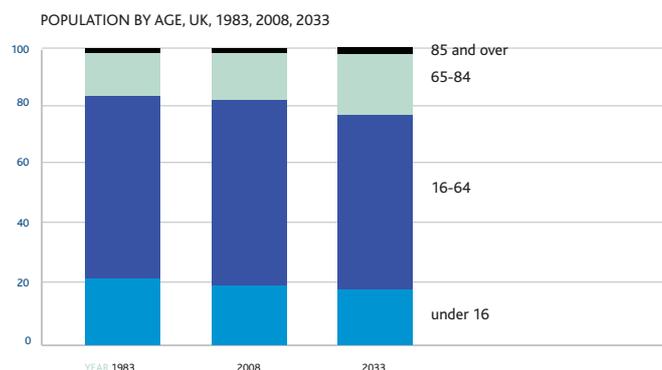
- 3.19** It would be correct to say that Great Britain has, in all senses, managed to meet the casualty reduction targets sets in March 2000. Indeed there is a very positive picture to paint, but the nature of the subject must not be forgotten. In 2008, 2538 people died on our roads and it is possible that around 80,000 people were seriously injured. This number includes but does not begin to illustrate the numbers of people left with permanent disability including paraplegia and brain damage.
- 3.20** Despite a sharp fall in road deaths in 2008, the Great British public continue to lose 7 people per day on British roads. TRL report 663 highlights a divergence between fatal and serious injury trends which began in the mid-1990s. Road death in GB rose in 2001 and again in 2003. Although there is no specific target for deaths reduction for 2010 in Great Britain, the 29 per cent reduction from baseline observed in 2008 is unlikely to meet the EU 50 per cent target by 2010.³²
- 3.21** We know that casualty reduction is inconsistent in Great Britain, both geographically and by socio-economic factors and behavioural choices. Looking geographically, it is also possible to observe great divergences in casualty reduction rates across GB. The map on the following page, created by DfT, shows the situation 1994/98 baseline data against 2006/08 data.

Age

- 3.25** In *A Safer Way*, the DfT provided substantial analysis of KSI related to age groupings. The chart below illustrates the very high risk experienced by young people from 16 which then declines after the age of 30, across all modes.



- 3.26** Targets to 2010 had a dramatic impact on the number of children killed and seriously injured on British roads. Beyond 2010, this focus needs to be extended, placing emphasis on improving the lot for young people well into their 20s.
- 3.27** Proportionally, the elderly are also over-represented in casualty collisions, and severity tends to be higher as a result of frailty.³⁵



The population of the United Kingdom is ageing³⁶. It is expected that by 2033, 23 per cent of the population will be aged 65 and over compared to 18 per cent aged 16 or younger.³⁷ In 2008, the road death rate for over 80s per 100,000 head of population is 7.4 – higher than any other age group except 16-19³⁸. It is important that research into this area continues to be developed as the population continues to age. This is an area which will require a particularly shared vision, with coordination between road safety professionals, doctors, public transport providers and groups representing the older road user.

Deprivation

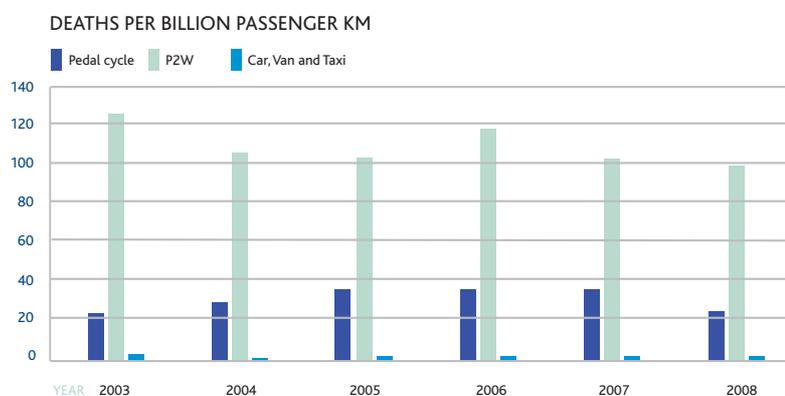
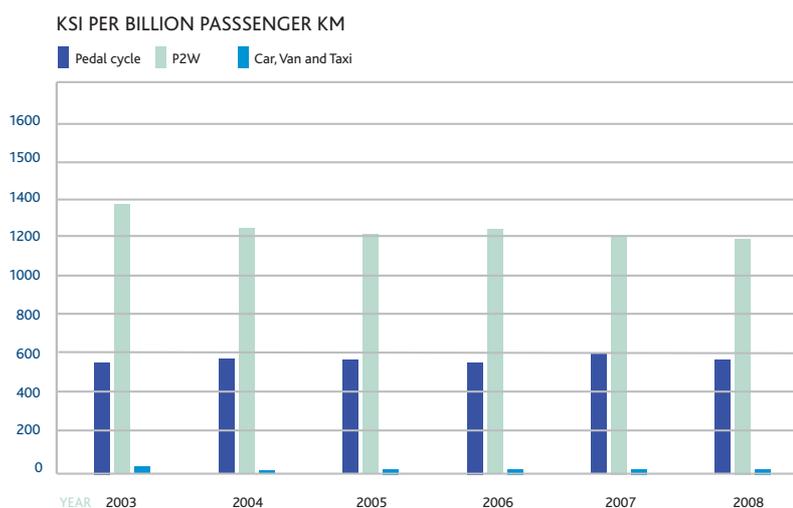
- 3.28** In 'A poor way to die: social deprivation and road traffic fatalities', a report commissioned by DfT, researchers from the University of Nottingham analysed 893 crashes between 1994 and 2005, looking at the relationships between explanatory factors and the Index of Multiple Deprivation (IMD) of the primary fatality. The headlines from the research showed that 'excessive speed, driver intoxication, driver/passenger failure to wear seat-belts, and unlicensed/uninsured driving were most prevalent in fatal collisions in the most deprived IMD quintiles.'³⁹

- 3.29** In **A Safer Way** the DfT re-addressed the link between deprivation and road safety risk. Largely as a result of targeted funding for the short-term Neighbourhood Road Safety Initiative ^{40,41}, road casualty targets were met more quickly in some of the most deprived areas of Britain although some disparity still exists. The Department have identified that the deprivation effect is most marked among young people and among pedestrians.
- 3.30** In the consultation document, the Department suggested that a key challenge in this area would be to focus on pedestrian and cyclist casualties, particularly in deprived communities. It is vital that any approach insists on looking for cross departmental working to identify and alleviate the conditions leading to casualty collisions.

User Types

Powered Two Wheelers

- 3.31** In **Tomorrow's Roads** it was seen that motorcyclists made up only 1 per cent of road traffic, but 14 per cent of deaths and serious injuries on the roads. Today, Powered Two Wheeler (P2W) riders continue to make up only 1 per cent of total road traffic ^{42,43}, or just 0.4 per cent of the total number of trips ⁴⁴, and yet 20 per cent of those killed or seriously injured on British roads in 2008 were riders of Powered Two Wheelers. The charts below show the 'risk-gap' which applies to road users of different modes.



- 3.32** The charts above indicate that the death rate for P2W riders is higher than the KSI rate per billion vehicle KM, when compared with other modes.

- 3.33** The economic climate, urban sprawl and environmental concerns continue to affect modal choice and impact on the numbers of people choosing to use Powered Two Wheelers. Although important research on rider motivations and driver skill relating to rider awareness has already taken place, it is vital that the DfT continue to invest in research to protect riders.^{45, 46}

Pedal Cyclists

- 3.34** The charts above also show a marked difference in the safety risk per billion km between pedal cyclists and car users. The Department has already published some research into the causes surrounding cyclist casualties⁴⁷ and is due to publish other research soon.
- 3.35** Cycling, like walking, is being promoted as part of the active travel strategies to confront climate change and disease related to obesity among others.⁴⁸ Observed rates of pedal cycling have fluctuated over the last 40 years but it is expected that cycling, as a modal choice, will become more popular. As a result, in **A Safer Way**, the Department suggested a rate-based casualty reduction target to be monitored at the national level.
- 3.36** An important line of research has been identified by the Cyclist Touring Club (CTC). Safety in Numbers should be considered and researched further by DfT.⁴⁹ The Cycling Demonstration Towns⁵⁰ have shown significant increases in cycling, whilst in 'Valuing the benefits of cycling' a report for Cycling England, it is suggested that any increases in cyclist casualties are perhaps indicative of a rate-based decrease based on unmeasured increases in exposure.⁵¹ More comprehensive research in this area would be useful to policy makers and practitioners.
- 3.37** Another area of research on this topic should see closer working with the Department for Health (DH) and Primary Care Trusts (PCTs) and should look at the policy trade-off between safe and active travel.
- 3.38** On a more general note, funding should go into improving data collection on the active travel modes at the national and local levels over the course of the next strategy.

User Behaviours

- 3.39** In **Behave Yourself**, PACTS considered societal issues external to road safety and used them to reflect on a number of behavioural issues internal to road safety. The overwhelming finding across all external case studies was a need for exhaustive efforts to understand the nature of the problem, the barriers to change, and the specificities of attitudes, beliefs and values. It was seen that stand alone approaches are ineffective, based on the finding that 'success is premised on using a mixture of intervention methods at many different levels.'⁵²
- 3.40** It is evident that behaviours such as drink-driving, speeding and refusal to wear seatbelts continue to be significant at the national as well as the local level. As a result, a concerted and unified effort across the wide range of road safety partners will be necessary.
- 3.41** In **A Safer Way**, the department identified illegal and inappropriate speed as one of the 8 major challenges. It was noted that in 2007 illegal and inappropriate speed contributed to 26 per cent of road deaths. It is important that the current review of speed limits being undertaken by Local Authorities is completed as soon as possible.

User Location

- 3.42** There is some variation in safety from area to area and road to road (as will be seen in the national breakdowns). There is also a great deal of disparity in the kinds of risk profiles affecting different user types in different types of area and on different types of roads. In 2007, 62 per cent of all road deaths occurred on rural roads which only carry 42 per cent of traffic.⁵³
- 3.43** The EuroRAP programme has been and will continue to be a useful tool for practitioners and researchers, using a generated standard against which the relative safety of roads has been calculated.⁵⁴ It is important when using tools such as EuroRAP that journey purpose and other factors are taken into account. It would be interesting to see risk mapping extended to urban roads where the safety profile is quite different.

Conclusions

- 3.44** The above has summarised the general road safety picture of Great Britain today. All of the topics considered are at the forefront of where the DfT appear to be heading with the high-level approach of the next strategy. The key point to be taken here is that there are distinct inequalities in road risk, many of which can be expressed as trends.
- 3.45** Based on the assumption that road safety risk is in many instances likely to be related to wider socio-economic factors, in the next section this report has taken a different look at casualty reductions across GB, slicing the cake differently and observing emergent relationships between a number of the trends identified and area-type groupings.

Recommendations from this Chapter:

- DfT to continue to monitor the data disparities between the data sources identified in Reported Road Casualties Great Britain 2008.
- DfT and Home Office to improve consistency across STATS19 collection areas and to aid development of recording devices for use across the country.
- DfT to continue to invest in those initiatives which are improving road safety and which will continue to do so.
- DfT to continue to analyse and identify those road users who are least safe on our roads.

LOCAL AUTHORITY PERFORMANCE A FAIR ASSESSMENT?

This Chapter:

- Uses disparities in casualty reduction, highlighted in the previous chapter, as means to assess road safety performance without using across-the-board comparison of Local Highway Authorities.
- Identifies examples of alternative casualty reduction comparisons by area-type grouping based on Home Office benchmarking or by regional/national grouping.
- Finds evidence of trends in terms of socio-economic conditions or road safety delivery and the performance of area groupings.
- Suggests that more sophisticated measures should be used to compare performance, but also to conduct research, offer guidance and shared good practice.

Context

- 4.1** The **Tomorrow's Roads** strategy did not specify at any point that Local Highway Authorities (LHAs) were solely responsible for the achievement of targets set. However, with their local partners, LHAs across the board have adopted the national target at a local level. Indeed, for England, DfT rate Local Authority performance based on the national targets set.
- 4.2** London revised the targets in 2006 as part of an extended version of the London Road Safety Plan ⁵⁵, and some other LHAs adopted stretched targets as part of additional PSA funding options. ⁵⁶
- 4.3** This report has already acknowledged that disparities in road safety performance are likely to be linked to other factors such as local context, wider societal conditions, political buy-in, resources, Local Authority type and structure and so on. The DfT are evidently aware of this. The aim of this chapter is to highlight the potential benefit of using the knowledge already available to measure performance more fairly and to apply more specialized targets, research, guidance and communication between areas of similar make-up.
- 4.4** The overall structure of road safety delivery in Great Britain is complex. A local highway authority may be a county, unitary authority, London borough or a Metropolitan unitary. For purposes of Local Transport Plan submission, Metropolitan authorities are also combined under the old Metropolitan County groupings. None of these boundaries are of necessity coterminous with police force areas, which become the boundaries for Road Safety Partnerships. Furthermore, Government Offices comprise several police forces and highway authorities. Finally, Parliamentary constituencies, while constrained by the relevant local government boundaries, are generally smaller in size than Highway Authorities.
- 4.5** As the analysis is already done in RRCGB and in English Local Authority tables it was not deemed relevant for this report to compare the performance of individual Local Highway Authorities across the board. Local Highway Authority performance will instead be observed within county or unitary groupings against the wider contexts of authority type. This benchmarking procedure has allowed for a wider understanding of the local or context specific issues facing road safety delivery.

- 4.6** The benefits of benchmarking Local Highway Authority performance are clear. Comparing like with like is a more useful way to observe performance based on a smaller range of conditions and influences. That said, there are many ways to divide the Local Highway Authorities in England and no one is significantly better than another. Dividing the country into its various authority types may be useful on a structural level, but it fails to consider the large size of sampling groups and ignores the vast disparities in societal, economic and contextual conditions between areas such as Cumbria and East Sussex.
- 4.7** A more useful comparison method has been taken from the Home Office which, when comparing police performance, use family groupings of more alike police force areas. This analysis is based on the Home Office groupings. For this report, the Local Highway Authorities and other road safety delivery partnerships are considered to be more closely linked than the entire spectrum of British authorities.
- 4.8** Not all areas have been included. This process is intended to highlight the benefits of comparing more similar area groupings, not to provide an in-depth analysis of the whole country. In some instances, police forces fall into more than one category. Where this is the case, we have chosen one grouping for the area. This analysis will look at three area-type groupings: **Metropolitan County Areas; Predominantly Rural Areas; and Central Shire Counties.** London, Wales and Scotland have been viewed as regional/national groupings with very different road safety delivery structures to the country as a whole – they have therefore been considered separately as location-type groupings.
- 4.9** For each area-type, the same process has been observed, following the pattern below:
Area-type information – reasons for inclusions.
Casualty reduction performance.
Socio-economic/road safety delivery structures impacting specifically on area-type or location-type grouping.
 Observations by representatives in these areas about **the role of government** and the role of the next **road safety strategy.**

Area-Type Groupings

- 4.10** Three examples of area-type groupings have been chosen for this report: **Metropolitan County Areas; Predominantly Rural Areas; and Central Shire Counties.**

Metropolitan County Areas

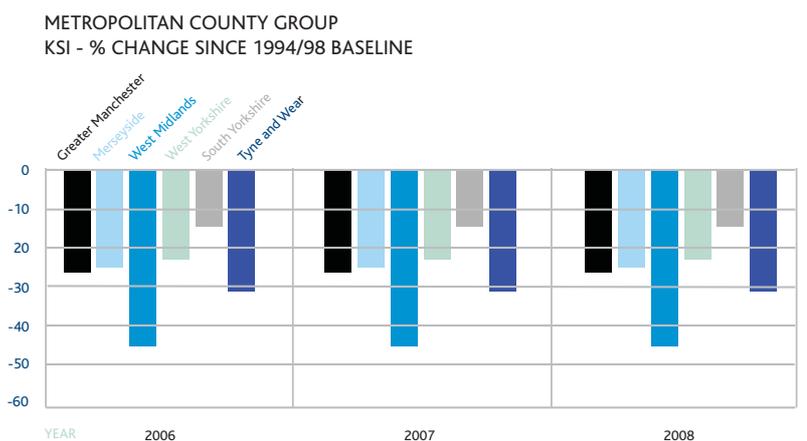


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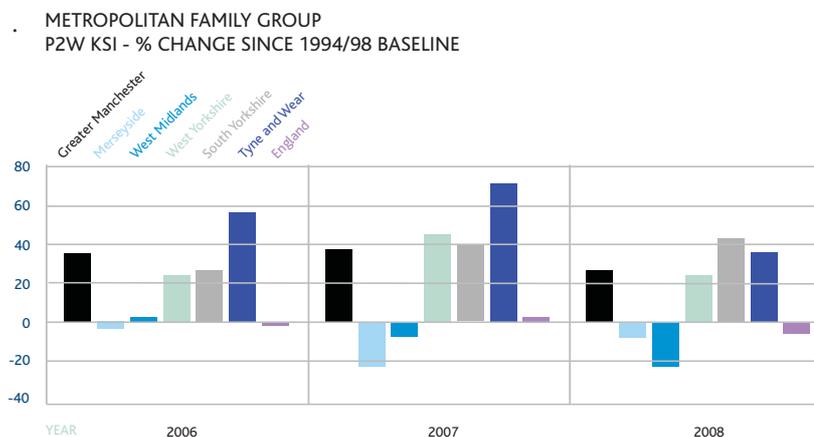
- 4.11** The Metropolitan County Councils were abolished in 1986 with most of their functions being devolved to the individual boroughs, making them de facto unitary authorities. The metropolitan counties have population densities of between 800 (South Yorkshire) and 2800 (West Midlands) people/km². Individual metropolitan districts range from 4,000 people/km² in Liverpool to only 500 people/km² in Doncaster. Today, residents of Metropolitan Counties (MCs) account for around 22% of the population of England, or 18% of the United Kingdom.⁵⁷
- 4.12** The Metropolitan Counties are sometimes referred to as 'Former Metropolitan Counties' (FMCs) although this description is not entirely correct. The county councils were abolished, but under the Local Government Act 1972, the counties themselves remain in existence, although they no longer exist in ISO 3166-2:GB as extant administrative subdivisions.⁵⁸

Casualty Reduction Performance

- 4.13** Generally speaking, the Metropolitan County areas are on track to meet the 2010 targets although they have slightly under-performed in casualty reduction when compared with the rest of England. In 2008 KSI reduction across England compared with the 1994/98 baseline was at 40 per cent while the MC areas averaged at 34 per cent.⁵⁹



- 4.14** After London, the Metropolitan County areas have some of the highest actual numbers of car occupant KSI, motorcycle KSI, pedestrian KSI and pedal cyclist KSI. However, per million head of population, the MC areas averaged at 403 KSI across all modes, much lower than the average figure for the whole country which in 2008 was around 474.
- 4.15** Child KSI casualty reductions in 2008 were at 54 per cent in the MC areas, compared with 58 per cent nationally. Child pedestrian KSI reduction rates were also over target and in line with national figures, although Tyne and Wear and Merseyside managed Londonesque reductions to child pedestrian KSI with 68 per cent and 60 per cent reductions respectively.
- 4.16** One area of specific concern for the MC areas involved a rise in KSI to P2W riders. Although P2W KSI is known to be a constant road safety concern across England and Great Britain with England seeing only a 9 per cent reduction in KSI casualties, the MC areas have had particular difficulties cutting numbers. They averaged an increase in KSI to P2W riders of 18 per cent in 2008 compared with the 1994/98 baseline.⁶⁰



- 4.17** Discussions with road safety practitioners in Metropolitan County areas found a high level of concern regarding the recent increase in the numbers of young P2W riders being seriously injured on the roads. The main concern for Local Highway Authorities and their partners is the difficulty they have in interacting with the younger P2W audience who do not appear to be responding to the training options available. The rapid increases in exposure appeared to be unexplained, but should be addressed as part of regional and national strategies. It is hoped that a better understanding of the audience in question and the motivations, attitudes and behaviours they observe may lead to a better contextual understanding from which to offer training and safety messages.

Socio-Economic Patterns

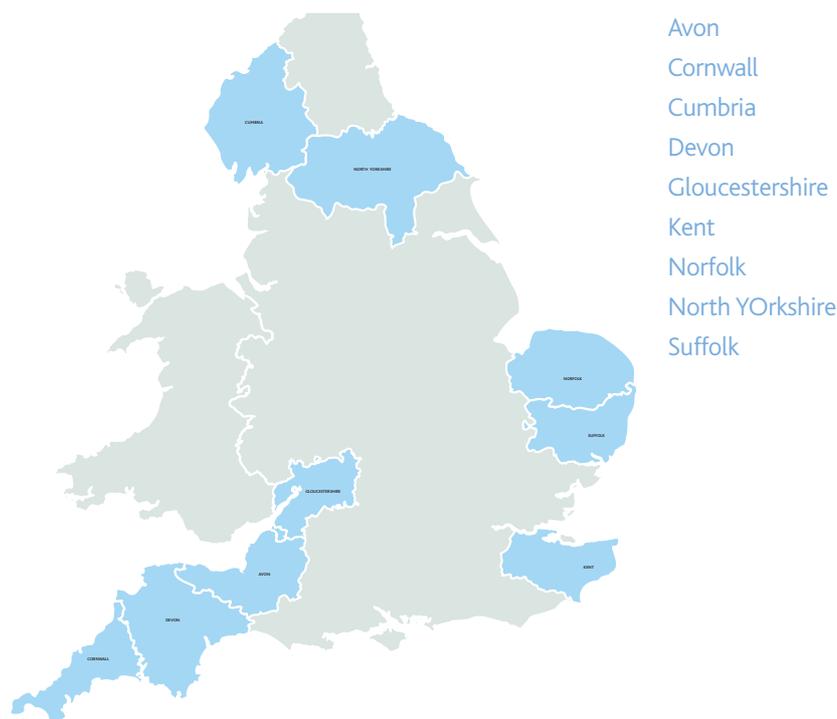
- 4.18** One of the issues consistent across the Metropolitan Counties apart from the West Midlands⁶¹, which may or may not be related to the problem of motorcycle KSI, are the very high levels of deprivation. All the MC areas suffer from extremely high levels of deprivation in some parts. As has already been seen, on a national level, it is possible to draw links between high levels of deprivation and poor road safety. Furthermore, it is perhaps most poignant in those areas that road safety messages are incorporated into the education process and yet the schools in question are already overstretched as a result of lower funding levels, lower literacy levels, higher levels of truancy and other difficulties associated with deprivation.
- 4.19** Although the West Midlands have less deprivation than their Metropolitan counterparts, mapping shows particularly high levels of immigration.⁶² There is a limited but indicative body of evidence suggesting links between immigrant and ethnic minority communities and poor levels of public health and safety in most industrialised receiving countries. Research done by the DfT recommended that studies take place looking into the three-way relationship between ethnicity, traffic awareness and casualty rates⁶³.
- 4.20** Taking that a step further, the DfT and other governmental bodies should jointly fund some research looking into the links between ethnicity, deprivation and public health including road safety in GB. The Metropolitan Counties alongside London should be key partners within this research process. Particular targets and additional funding should be designated to those areas where resources are stretched, deprivation is high, and road safety efforts are struggling despite strong effort to get the message through to disadvantaged and often disenfranchised communities. It would also be interesting to see some cross-European research conducted in this area.

- 4.21 It was seen that casualty reduction partnerships and wider community connections within the Metropolitan County areas were more effectively connected than in England as a whole. The partnerships and community networks appeared, in general, to have been well established for some time. Either by necessity or by design, those areas with more widespread deprivation were much more aware of the wider needs of their communities and were more involved in joining-up road safety messages and campaigns than in the country as a whole.
- 4.22 As a result, the range of road safety has frequently extended beyond casualty reduction, meaning that road safety included many more of the wider safety and security issues such as street crime reduction, more active modal choices, improved streetscapes and so on.

Role of Government and Strategy

- 4.23 The Metropolitan Counties appeared acutely aware of a need for effective evaluation tools for ETP measures and better tailored 'good practice' guidance for Metropolitan conditions. This is particularly the case in light of expected budget cuts. It is important that the Metropolitan Counties are encouraged to form closer working relationships with one another and, potentially, offered a joint funding pot for ETP measures where applicable. More sophisticated targets should be applied.
- 4.24 It was seen that road safety policing often had to be funded by Local Highway Authorities as police resources were more stretched as a result of higher levels of crime in this area grouping. For these reasons, it may be preferable to have 'deprivation and road safety funding' ring fenced.
- 4.25 This group was keen on interaction with DfT at the partnership or regional levels which were seen in general to be better established than those in other areas. The Metropolitan Counties, either through necessity in the gaining of political interest or by design, wanted to see options for more integrated contextually-specific targets to be taken on at the local level and recognised nationally.

Predominantly Rural Counties



Avon
 Cornwall
 Cumbria
 Devon
 Gloucestershire
 Kent
 Norfolk
 North Yorkshire
 Suffolk

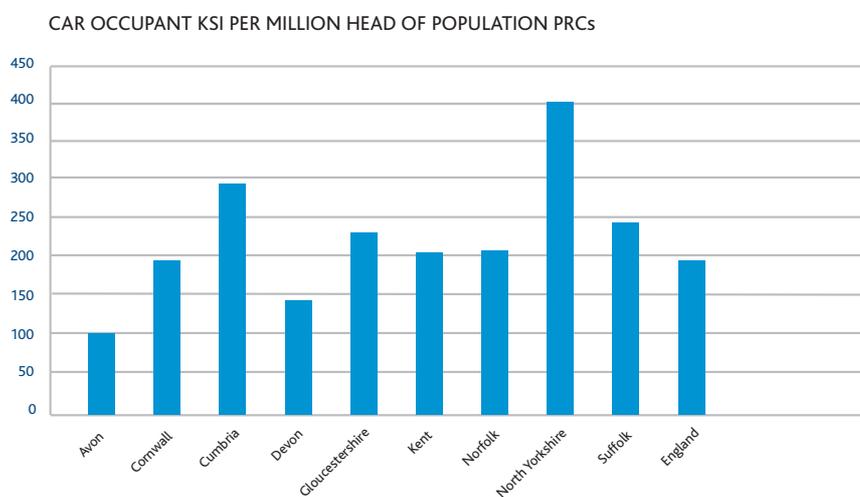
General Information

- 4.26 These county areas, alongside the shire county areas, are most difficult to disaggregate, and many fall into both categories depending on the measure in question. For that reason, we have chosen to fall back entirely on the Home Office grouping, in the aim that social conditions will be most similar.
- 4.27 Although the Predominantly Rural Counties selected for this report do not carry all rural traffic and will not necessarily experience all road safety issues associated with rural roads in general, it is worth revisiting rural road safety and summarising the key issues which need to be considered in this context.
- 4.28 In 2008, rural roads accounted for 59 per cent of all road deaths and 41 per cent of all KSI in Great Britain. TRL Report PPR200⁶⁴ summarised a range of research into rural road safety issues, identifying the following trends:

- About 61 per cent of deaths and of KSI casualties on rural roads are car occupants, about 19 per cent are motorcyclists.
- Single vehicle collisions account for over 30 per cent of all rural non-motorway KSI collisions and 37 per cent of all fatal collisions; they are most likely to occur on B or C class roads at night, on bends and involve young drivers.
- Around 48 per cent of cyclist deaths occur on rural roads.
- Of a number of behavioural factors considered, excessive speed had the greatest impact, identified in 15 per cent of fatal accidents and 11 per cent of serious accidents.
- Increased road width is generally associated with lower collision rates (though estimates as to how much vary).
- The width of the 'safety zone' on the side of the road has a significant effect on casualty outcome. Carriageway edge treatments can help the driver avoid leaving the road

Casualty Reduction Performance

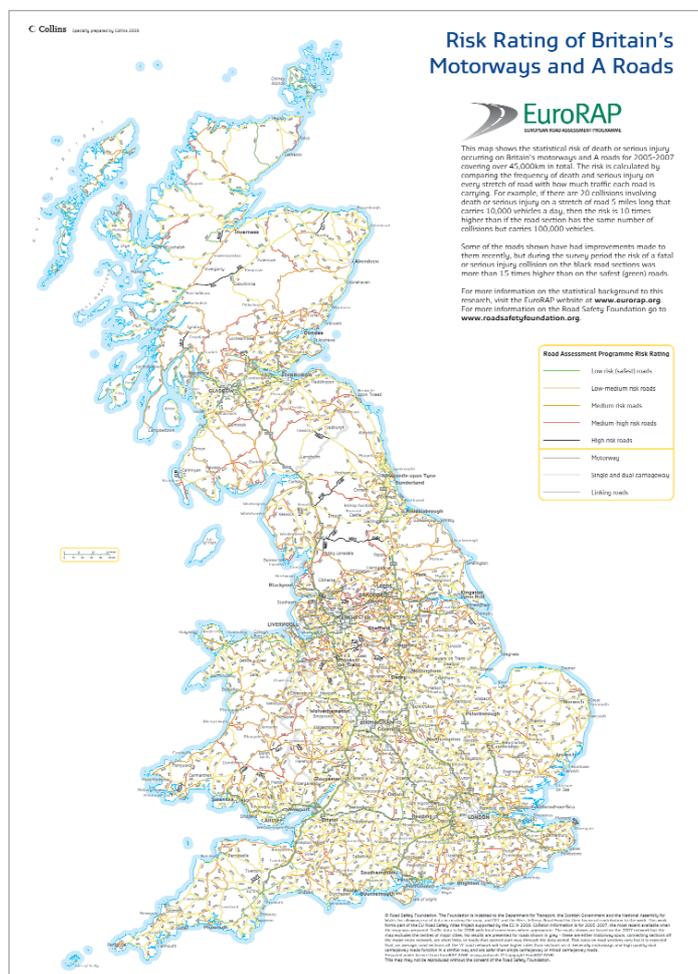
- 4.29 The counties selected have, on the whole, produced fairly similar levels of casualty reductions across the modes and ages. Overall KSI casualties in the Predominantly Rural Counties (PRCs) had been reduced by 37 per cent since baseline in 2008, against 40 per cent nationally. Child KSI was down 58 per cent, in line with national figures.⁶⁵



- 4.30 Averaged out, the PRCs had KSI per billion vehicle kms and KSI per million head of population rates slightly lower than the average for the country as a whole. The very rural issue of high levels of car occupant casualty is frequently apparent among this group, with

KSI per million head of population on average higher than the national mean despite particularly low rates in Avon and Devon. The chart above shows fluctuating but above average car occupant KSI per million head of population.

- 4.31 Risk mapping done by EuroRAP reflects the higher levels of risk/lower levels of 4 star roads in and around the PRCs.⁶⁶



- 4.32 Research shows that the severity of rural collision injuries can be significantly altered through road engineering measures which increase the passive safety capacity of a roadside. Additionally, whole route treatments in unison with neighbouring authorities and areas could be of benefit – the EuroRAP maps indicates wide risk disparities over different parts of the same route, underlining the need to work more closely together and identify the high risk behaviours, environments or conditions in play.

Socio-Economic Patterns

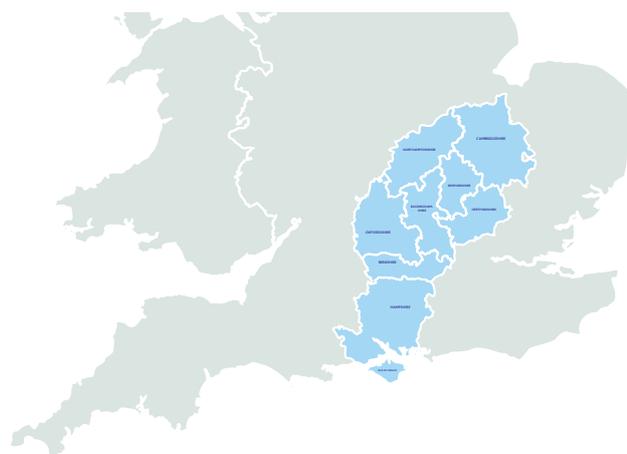
- 4.33 The PRC areas we spoke to for this report had a very different perspective from other areas, raising a number of issues with road safety delivery which were not identified elsewhere. It was seen that PRCs frequently had a number of small urban centres and pockets of very high deprivation; inequality was generally higher in these areas. As a result, the road safety budget was more thinly spread over a wider range of issues than in some other areas, and effectiveness was hard to gauge. In the most rural parts of the areas, inappropriate speed appeared to be difficult to deal with. Authorities felt that the target group (16-35 year old males) were particularly hard to engage with, often completely unrepresented in any other community context. The expected budget cuts were most worrying for these areas in terms of restrictions on capital projects which can be costly and slow processes.

4.34 Role of Government and Strategy

In terms of the role for central government, research noted large variation in opinion, although some key strands were identified with in a number of areas:

- Government to make speed enforcement a police priority.
- Government to implement ISA for young and inexperienced drivers.
- Government to re-introduce the capital/revenue spending analysis of individual authorities (which helped with a general understanding of patterns of cost and benefit).
- Government to work more closely with the regions, rather than being spread thinly across the Local Authority spectrum.

The Central Shire County Areas



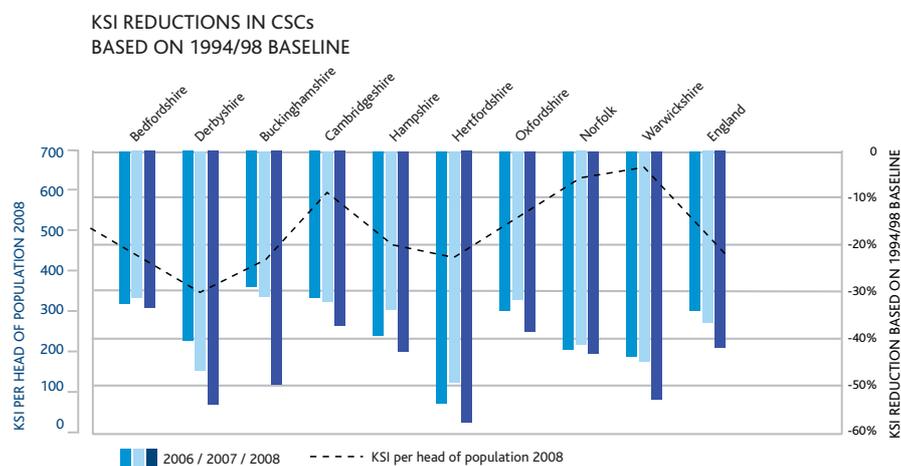
Bedfordshire
 Berkshire
 Buckinghamshire
 Cambridgeshire
 Hampshire
 Hertfordshire
 Oxfordshire
 Northamptonshire
 Warwickshire

General Information

- 4.35 This group of 'Central Shire Counties' was chosen firstly by geographical position, and secondly by likeness of social and economical conditions. To a large degree, the counties selected have higher incomes than the national average, have medium to low density of population, have very little homelessness, less than 12 per cent on income support benefits, good education and high levels of public transport use ^{67, 68, 69, 70}.

Casualty Reduction Performance

- 4.36 When averaged-out, the KSI reductions in the Central Shire Counties (CSCs) were around the same level as the national average in 2006, 2007 and 2008, although KSI per head of population was on average higher than the national average. Overall KSI reductions in the CSCs averaged at 44 per cent compared with 40 per cent nationally, while child KSI reductions averaged at 59 per cent compared with 58 per cent nationally.
- 4.37 In the CSC areas, road safety obstacle trends were less distinct. As a result, research used the Market Analysis and Segmentation Tools (MAST) Project data tool. ⁷¹ Funded by the DfT, MAST provides simple formats to analyse road safety data from national to Local Authority level. The tool has the potential to be extended into wider areas of Local Authority performance analysis.



Socio-Economic Patterns

- 4.38** Within the CSC category it was harder to get a sense of the particular issues being confronted by authorities and partnerships. That said, there were clear difficulties with young, inexperienced drivers from advantaged backgrounds who are perceived as difficult to appeal to with road safety messages. Little was known about the higher-level behavioural patterns of young drivers and more research evidence and good practice examples are needed.
- 4.39** CSC authorities noted difficulties enlisting the support of local cabinet members; this has now become more of a worry as the Local Transport Plans are drafted and in light of the expected budget cuts in the next financial year. Where applicable, the transition from town or district council to Unitary Authority was considered a positive move for road safety – the new Unitary Authorities appeared to be very aware of their areas and pleased that specific issues were not being drowned within a county context.

Role of Government and Strategy

- 4.40** One of the CSC areas was in the process of evaluating all the ETP work across their partnership in order to generate the most efficient use of time and money spent between the various partners. Once this review has been carried out, and the evaluation complete, PACTS will revisit the area in order to establish whether evaluation of this kind is significant for all Local Highway Authorities.
- 4.41** Again, the difficulty of evaluating ETP measures was brought up. Across the board, this has been of concern. In the CSC areas, although links with schools appeared on the whole to be better than in other areas visited, other links within the community were less well-enforced. As a result, the CSC areas were very keen to see research or good practice looking into the most useful ETP approaches. E-valu-it will hopefully provide that resource.

Location-Type Groupings

4.42 Three location-type groupings have been selected for this report: London; Wales; and Scotland.

London

Casualty Reduction Performance

4.43 The national targets had largely been achieved in London by 2004, apart from those for powered two-wheelers. The Mayor therefore announced new, more challenging targets in March 2006 to be achieved by the end of 2010 following consultation with stakeholders:

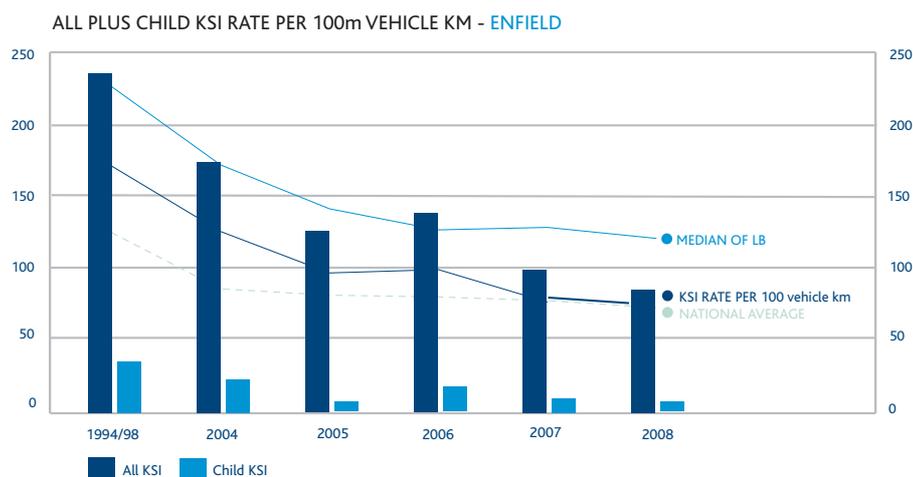
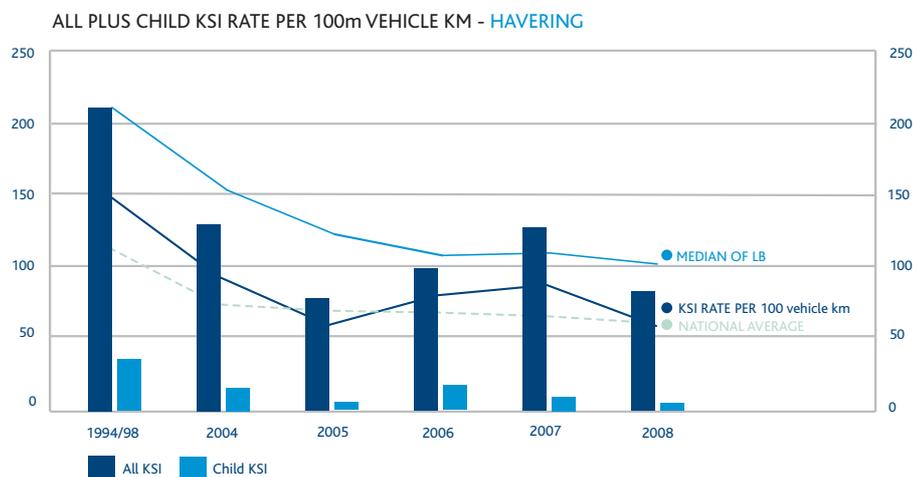
- A 50% reduction in the number of people killed or seriously injured
- A 50% reduction in the number of pedestrians killed or seriously injured
- A 50% reduction in the number of pedal cyclists killed or seriously injured
- A 40% reduction in the number of powered two-wheeler users killed or seriously injured (unchanged)
- A 60% reduction in the number of children killed or seriously injured
- A 25% reduction in the slight casualty rate, expressed as the number of people slightly injured per 100 million vehicle kilometres.⁷²

4.44 Barking and Dagenham, Camden, Kingston upon Thames and Merton all managed to achieve child casualty reductions of over 80 per cent since the 1994/98 baseline by 2008. The table below shows casualty reduction figures across all modes for the whole of Greater London, showing TLRN network casualty reduction as separate figures.

CASUALTY REDUCTION RATES (ALL MODES) FOR GREATER LONDON

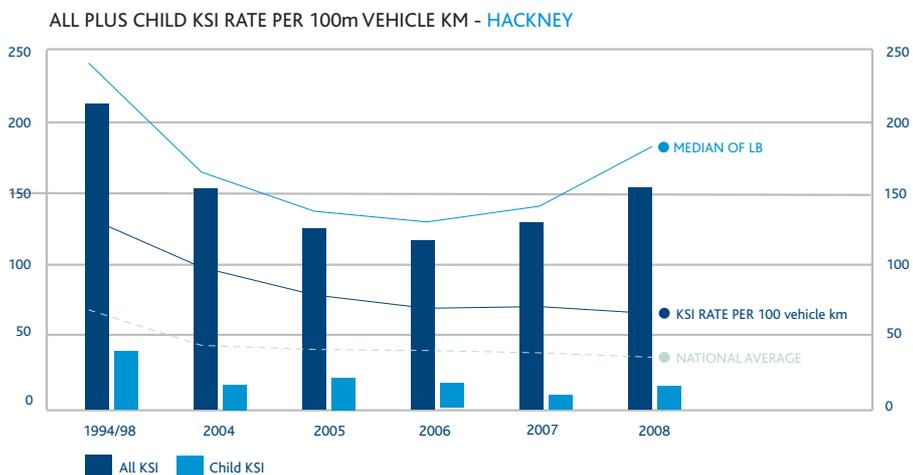
Category	Average KSI reduction across England 2008 Compared with 1994/98 baseline	KSI reduction Greater London 2008 Compared with 1994/98 baseline	KSI reduction on the TLRN 2008 Compared with 1994/98 baseline	HIGHEST reductions All road types	LOWEST reductions All road types
All modes	-40	-49	-43	-64 (Enfield)	-22 (Tower Hamlets)
Child all modes	-58	-67	-66	-90 (Merton)	-43 (Waltham Forest)
Car occupants	-50	-66	-66	-87 (Ealing)	-47 (Sutton)
P2W	-9	-24	-15	-62 (City of London)	+40 (Hackney)
Pedal Cyclist	-50	-28	-2	-84 (Redbridge)	+68 (Hackney)
Pedestrian	-42	-45	-40	-54 (Harrow)	+49 (Tower Hamlets)

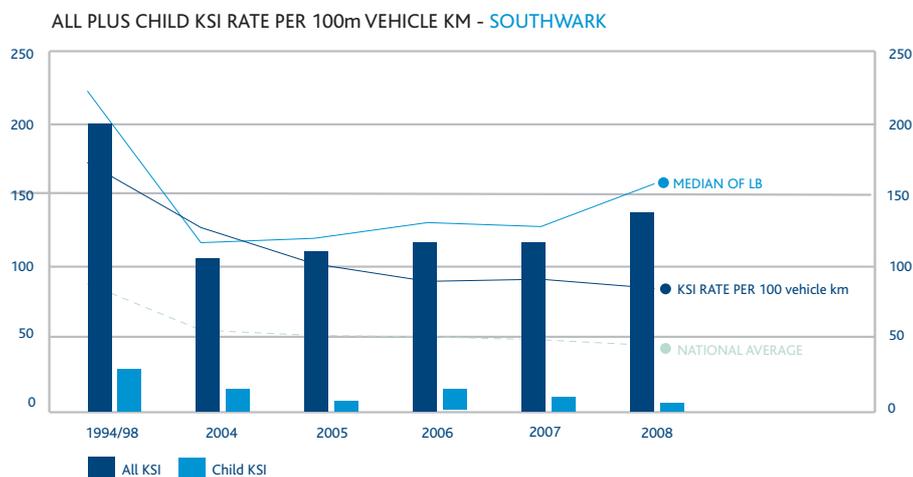
4.45 The table above shows that Greater London casualty reductions have exceeded those of the national average, often by significant amounts, except in the case of pedal cyclists (which will be considered below). That said, it is vital to show casualty reduction in context and it should be pointed out that the London boroughs often started out with a 1994/98 baseline of KSI per million vehicle kilometre figure above that of the national average. This is shown below for two of the four top performing boroughs in terms of KSI reductions in 2008 compared with the 1994/98 baseline



4.46 The charts above ⁷³ show how Havering and Enfield, through significant KSI reductions across the board, have brought their KSI rates, per billion vehicle KM, in line with the national average. As casualty numbers have reduced at such a rate, it will be important that TfL continue to coordinate road safety funding in those very high performing boroughs to ensure economies of scale and avoid the inevitable risk of diminishing returns.

4.47 In those boroughs which have not seen such significant KSI reductions since the 1994/98 baseline, the gap is far more pronounced between borough and national average, throughout the time period measured.





4.48 Looking at the chart above, and on the previous page, it becomes clear that some of the London boroughs, despite often significant reductions in KSI, trail behind their London counterparts and the country as a whole. TfL should encourage greater partnership work between and across boroughs of similar socio-economic conditions.

4.49 Pedal cycling KSI has been a particularly difficult area to generate reductions for many London boroughs and on the TLRN network. But as TfL point out, 'the volume of cycle trips on the (TLRN) has been growing at quite a rapid rate since 2003: equivalent to an average of 17% a year.'⁷⁴ This is most marked in Hackney where, as early as 2001, cycling had already increased over ten years by 70 per cent.^{75 76}



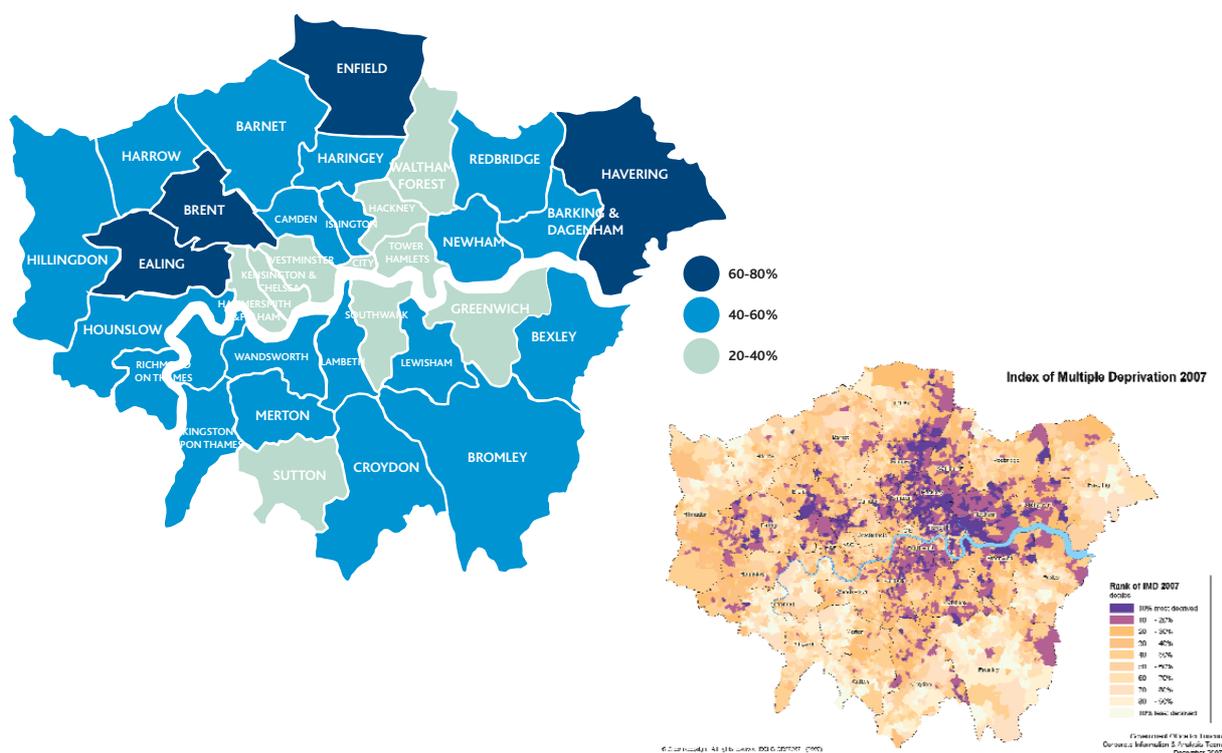
4.50 More than half of all cyclist deaths in London are caused by collisions with Heavy Goods Vehicles.⁷⁷ Although TfL has invested heavily in increasing awareness of cyclists and lorry drivers to one another, boroughs were particularly concerned about the increases in HGVs in London as a result of the Olympics and Cross Rail, and the safety implications they bring. It is hoped that TfL continue to augment cyclist safety approaches over the course of the next strategy.

Road Safety Delivery Patterns

4.51 London's casualty reduction happens in two main strands. Transport for London (TfL) is responsible for casualty reduction on all roads and streets on the Transport for London Road Network (TLRN) and for providing funding, London-specific guidance, data and research to the individual London boroughs. The London Road Safety Unit (LRSU) manages a budget which London boroughs can request money from for specific local safety schemes, 20 mph zones and education campaigns. This process is called the Local Implementation Plan or LIP process. When applying for LIP funding, boroughs must show how their proposed schemes will contribute to casualty reduction in London.⁷⁸ The London boroughs are responsible for all roads not on the TLRN network or owned by the Highways Agency.

Socio-Economic Patterns

- 4.52 In terms of KSI rates per 100m vehicle km, many London boroughs lag behind their Local and National counterparts. Having seen similar trends in the Metropolitan County Areas, it seemed appropriate to look at the potential deprivation effect on road safety across London.



- 4.53 The maps⁷⁹ above show a significant link between the most deprived areas (purples on the right map) and those areas with less significant casualty reduction figures (turquoise on left map). Though this report will not have a chance to investigate the link further, research should be done to further understand the links between deprivation and poor public health across the board. As recommended earlier in this report, the DfT and other governmental bodies should jointly fund some research looking into the links between ethnicity, deprivation and public health including road safety in GB in partnership with those Local Authorities which make up the most deprived areas of the country.

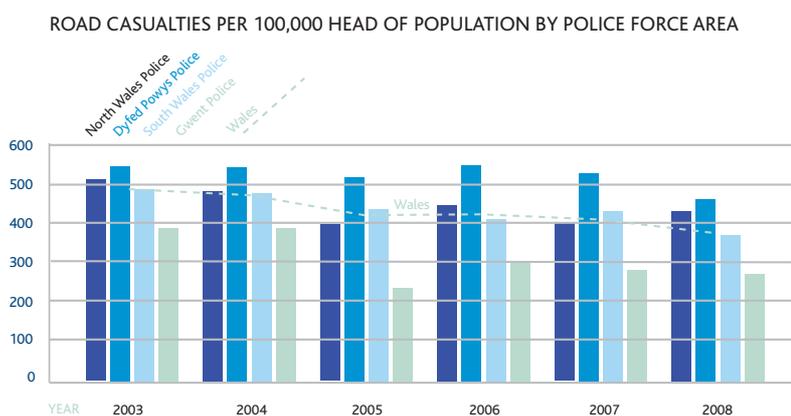
- 4.54 The London boroughs brought up a number of other issues relating to road safety over the next ten years:

- The consultation on **A Safer Way** indicated that a high-level, visionary document would be produced. Some boroughs suggested that strategic implementation documents alongside the central strategy would be useful to them as delivery partners.
- The boroughs would like to see more research into ethnic and deprived communities and road safety issues, including direction on good practice in this area. .
- Boroughs suggested that it would be useful to see good practice guidance on 'how to work more closely with other local agendas and partners such as schools, PCTs and fleet managers' and 'How to get cabinet members involved'.
- In those boroughs where a cabinet member had taken specific interest in issues surrounding road safety, it was seen that funding processes and generating public buy-in was made easier.
- Boroughs on the whole indicated a desire to work more closely with central government in some format, with DfT acting as the central partner for the dissemination of good practice guidance and research.

Wales

Casualty Reduction Performance

- 4.55 Despite running behind their neighbours in terms of KSI reductions, the Welsh are on-track to meet the 2010 targets. In 2008, the number of people killed or seriously injured (1,395) was 31 per cent lower than the British average for 1994-98. The number of children killed or seriously injured in 2008 (115) was 60 per cent lower than the 1994-98 average. In 2008 the number of people slightly injured per 100 million vehicle kilometres was 37 per cent lower than the 1994-98 average.
- 4.56 Since 2004, Wales has seen a steady reduction in KSI per head of population. Wales has high numbers of KSI in the younger age brackets. Young people aged 16-25 made-up 37 per cent of all road deaths in 2008.⁸⁰ There are particularly high-levels of road death among young drivers – of 130 drivers and passengers killed on Welsh roads in 2005, 59 were between the ages of 16 and 25, representing 45% of total deaths.⁸¹
- 4.57 Rather than looking at the individual Local Authorities, this report has split the country into its Police Force Areas.



- 4.58 It is evident from the chart above that road casualties vary between areas and year by year. This may be related to differences in data collection and may reflect the low numbers although Dyfed Powys has consistently seen higher numbers of casualties per head of population. Looking back to the EuroRAP mapping tool⁸² referred to earlier in this document, it is possible to see that the Dyfed Powys area, which includes the most sparsely populated county in Wales, has an above-average number of medium to high-risk roads.



- 4.59 Deprivation does not appear to have a strong link to road safety at this level. Dyfed Powys for example sees less deprivation overall than the country as a whole^{83,84} There is a particularly strong link in Wales between rural areas and lower levels of road safety. This is in part as a result of sparse population and in part a result of the road safety elements known to be associated with rural roads. It is hoped that more cohesion between rural areas in Wales, Scotland⁸⁵ and England is encouraged and supported over the course of the next strategy.

Road Safety Delivery Patterns

- 4.60 Road safety in Wales is mainly delivered by 22 Local Authorities which fit within four Police Forces and three Fire and Rescue services. Road Safety Wales was established to create '**unity from diversity**' by developing and sustaining co-operation and interaction between all 22 Local Authorities in Wales and/or agencies with the responsibility for local authority road safety promotion, the Welsh Assembly Government, the four Welsh Police Forces, the three Fire and Rescue services, Welsh Ambulance Services NHS Trust and the Royal Society for the Prevention of Accidents.
- 4.61 The collaborative approach helped to contribute towards the internal **Road Safety Strategy for Wales**⁸⁶ which built on the **Tomorrow's Roads** Strategy and incorporated the three strategic objectives from the Transport Framework for Wales. The strategy document had an evidence-led focus areas based on Wales-specific issues. In summary, this translated as:
- Improving safety for children – especially as pedestrians and cyclists.
 - Promoting safe use of "vulnerable" transport modes.
 - Reducing excessive and inappropriate speed of motor vehicles.
 - Targeting other poor driving practices – use of mobile phones, drink-driving, drug-driving and driving whilst tired.
 - Working on links with poverty.

Role of Government and Strategy

- 4.62 The Welsh road safety strategy from 2000 managed to incorporate the British targets and vision whilst focusing on specific road safety issues for Wales. It is hoped that this process continues and that the Welsh Assembly and Road Safety Wales continue this approach for the next strategy.

Scotland

Casualty Reduction Performance

- 4.63 Until 2008, Scotland had far higher levels of KSI reduction than England or Wales. The last year of confirmed data showed lower performance in Scotland combined with especially good years for England and Wales had leveled the charts, though Scotland continues to exceed the British average. By the end of 2005, five years before the target date Scotland had achieved the following:
- A 39 per cent reduction in the number of people killed or seriously injured
 - A 57 per cent reduction in the number of children killed or seriously injured
 - A 22 per cent reduction in the slight casualty rate.

At the same time, per head of population, Scotland has not been the highest performer of the three countries for any of the years since the 1994/98 baseline.

- 4.64 Reported Road Casualties Scotland** highlighted that in 2008, despite above average casualty reductions across the 8 police force areas ⁸⁷, Grampian had serious injuries at 19 per cent above the 1994/98 baseline. ⁸⁸ The population density, like much of Scotland, is low and the area quite rural, life expectancy is higher in the area than across Scotland on average, and the age range appears normal. ⁸⁹ In reality, Grampian in 2008 had just had a bad year, and the 2004/2008 averages show around average performance compared with Scotland as a whole. It is vital that rolling average continue to be used in order to move away from a 'snapshot' focus which can yield anomalous results.

Road Safety Delivery Patterns

- 4.65** Road Safety Scotland develops and co-ordinates national road safety education and publicity initiatives. It is funded by the Scottish Government and in 2006/2007 its annual budget was £1.30 million with a further £594,000 spent on publicity campaigns, funded by the Scottish Government Communications Directorate.
- 4.66** Road Safety Scotland operates via a number of committees. These committees draw their membership from all Local Authorities & Police Forces in Scotland as well as from national bodies with a road safety involvement such as the Royal Society for the Prevention of Accidents, NHS Health Scotland and Institute of Road Safety Officers Scotland.
- 4.67** 26 Road Safety Units are located throughout Scotland. In some areas the Road Safety Unit is administered by the local council, usually within the Roads and Transportation section, in other areas the Road Safety Unit is the responsibility of the Police Force.

Role of Government and Strategy

- 4.68** Scotland has already launched their Road Safety Strategy to 2020. Go Safe has been developed to enable Scotland to set up a national road safety governance structure and to engage road safety partners at a Scottish level to give a new impetus to road safety in Scotland. This will be done alongside the DfT. Scotland have taken this step which allows the economies of scale benefits from working alongside the British strategic partners, but also maximises casualty reduction through Scotland-specific policy, focus and strategies.

Conclusions

- 4.69 This chapter has taken a closer look at area and location-type casualty reduction performance and has shown that trends between area-types exist either through socio-economic factors or through delivery-approach specifics. Though not extensive, this chapter has served to underline the importance of more sophisticated means of comparison between road safety units. By making more targeted comparisons, it may be possible to identify and work with the wider issues which impact on road safety.

Recommendations from this chapter:

- **Local Highway Authorities and casualty reduction partners to work towards more rigorous approaches to evaluation, a clearer focus on evidence-led working through improved data analysis and more joined-up working.**
- **DfT to generate a useful family-grouping tool for casualty reduction comparison by area type.**
- **DfT to use area-type groupings to apply more specific research, guidance and collaboration on ETP measures where appropriate.**
- **DfT to continue research into motivations of and risks to Powered Two Wheeler riders.**
- **DfT to continue research into the motivations of and risks to young car occupants, particularly males on rural roads.**
- **DfT to fund research looking further into the links between deprivation, ethnicity and poor quality of life including casualty risk on the roads.**
- **DfT to redefine its role, taking a more delivery-based focus and identifying the most effective means of communication with their road safety partners, either at the regional or area-type level.**
- **DfT to consider options for more specific targets in addition to the national target in certain area-types in order to ensure maximum casualty reduction benefit.**

MOVING FORWARD

A SAFER WAY?

This Chapter:

- Provides a three-point summary of the conclusions in this report.
- Re-enforces the need for a holistic and sustainable approach.
- Outlines the PACTS position on the next road safety strategy

A Holistic and Sustainable Approach

- 5.1** In **Beyond 2010**⁹¹, PACTS outlined the need for a holistic approach to road safety in Great Britain towards the ultimate achievement of risk on the roads being not more than twice that experienced elsewhere in everyday life. When considering this option, the report also analysed the two policies promoted in other leading European performers: **Vision Zero**⁹² in Sweden and **Sustainable Safety**⁹³ in the Netherlands.
- 5.2** The **Sustainable Safety** vision states that the road network is inherently hazardous (that serious crashes can happen anywhere and at any time) and that all possible solutions are considered in an integral and rational manner with no a-priori preference for improving roads, vehicles or changing behaviour. Sustainable Safety aims to prevent human errors and offences as much as possible or to soften their consequences by allowing for human limitations when designing the traffic system. First of all the surroundings, such as the road and the vehicle, should be tuned to man's capabilities and offer assistance and protection. In addition, information and education should prepare the human being for the traffic task, and, finally, his safe or unsafe traffic behaviour must be checked.
- 5.3** At a PACTS Westminster lecture in December 2009, speaker Fred Wegman, managing director of SWOV, the Institute for Road Safety in the Netherlands added to this vision, referring to his concept 'avoidable crashes'. Avoidable crashes he defined as being **'those crashes of which we know what caused them, of which we know how to prevent them, of which the prevention costs are socially cost-effective and which fit into the Sustainable Safety vision.'** This approach, he said, ensured that government has a duty to act, based on cost effective measures being taken. Wegman also outlined the 5 principles of **Sustainable Safety**:

SUSTAINABLE SAFETY

Sustainable Safety Principle	Description
Functionality of roads	Monofunctionality of roads as either through roads, distributor roads, or access roads in a hierarchical network
Homogeneity of mass and/or speed and direction	Equality in speed, direction, and mass at moderate and high speeds
Forgiveness of the environment and of road users	Injury limitation through a forgiving road environment and anticipation of road user behaviour
Predictability of road course and road user behaviour by a recognisable road design	Road environment and road user behaviour that support road user expectations through consistency and continuity in road design
State awareness by the road user	Ability to assess one's task capability to handle the driving task

- 5.7 The next road safety strategy from DfT should focus on holistic and preventative approaches to road safety, moving road safety forward and adapting a similar approach to that used in the public health arena.

A Safer Way

- 5.8 A **Safer Way** set out the government's expected approach to road safety beyond 2010. This section comments on that approach and sets out a PACTS vision for road safety performance management and road safety delivery over the course of the next strategy. This section serves, in a more general sense, to outline a number of the points made in the PACTS response to the **A Safer Way** consultation.
- 5.9 The aspiration to have the safest roads in the world is clearly laudable. However, this vision is insufficient on two counts. Firstly, this target, dependent on variable conditions, is largely reactive, reflecting on the achievements, frameworks and delivery of other countries. As such, the target does not necessarily offer the challenges to achieve a worthy vision. As a result, PACTS supports a 'pegged' vision, which aims for Great Britain to have the safest roads in the world by at least ten per cent better than its nearest counterpart, however well that counterpart is performing. Secondly, the vision does not enhance its sustainable objectives by supporting more active or greener travel options. As a result, PACTS suggests that the vision be altered to 'the safest roads in the world, by at least ten per cent, for all classes of road user'.
- 5.10 We recognise the case for a national target for deaths since this is a clear and unequivocal figure from which progress can be measured. However, a percentage-based target has more relevance to Local Authorities. A reduction of 1/3 is insufficiently stretching; targets should remain at 40% for 2020 and again for 2030, with national death targets at 2000 and 1000 respectively. PACTS would also urge that the DfT reconsider the removal of slight injuries from the targets as the figure, despite the perception of being an arbitrary distinction from serious injuries, is a substantial indicator of the trends in road safety.
- 5.11 While we recognise that the data on slight injuries is subject to both under-reporting and underestimating of severity, the absence of a target for slight injury reduction is likely to result in a significant reduction in the quality of data collection and reporting. In this context, it is vital that the police are helped to achieve easier and less time-consuming methods of data collection, especially through the widespread adoption of computerised devices. PACTS would also like to see an annual report monitoring casualty rate disparities between health and transport. This could be in the form of a statement to the Transport Select Committee.
- 5.12 PACTS endorses the need for two public bodies with responsibility for road safety monitoring: an enhanced **Road Safety Delivery Board** and a high level **Independent Panel**.
- 5.13 The **Road Safety Delivery Board** should be compact but wide-ranging, and have the power to call on expertise where required. This board would ideally report to the Transport Select Committee who in turn could hold enquiries or perform 'checks' on the department where necessary.

- 5.14** The **Road Safety Delivery Board** would take on a two sided responsibility. First, it would assess the performance of the government's partners in the public sector. Secondly, it would look at the government's performance within the context of those partnerships: how research is disseminated and used to inform local policy and activity and how good practice and performance are shared, The Board would then be in a position to highlight areas of good practice and areas of underperformance.
- 5.15** In such a format, the **Road Safety Delivery Board**, now subject to enhanced responsibility, should acquire greater authority, included in its terms of reference, and the content and provenance of its budget would need to be considered.
- 5.16** Although the road safety regulatory framework is sound, it is also the result of several substantial pieces of legislation, including the 1988 Road Traffic Act, the Road Traffic Offenders Act of the same year, the 1991 Road Traffic Act and the 2006 Road Safety Act. PACTS believes that there is a strong case for the consolidation of these pieces of legislation into a single Road Traffic Act, which would also include a duty to be placed on the **Road Safety Delivery Board** to report annually to parliament and a duty on public authorities and employers to reduce road risk to as low as reasonably practical. The board must be given the ability to influence local decision making.
- 5.17** The **Independent Panel** should first and foremost be genuinely independent. Members should be appointed periodically with terms in line with the recommendations from the Committee on Standards in Public Life ⁹⁴ (formerly the Nolan Committee). The chair should be subject to pre-appointment scrutiny by the Transport Select Committee. The panel should take a statutory position, and have terms of reference. The Australian National Road Safety Council sets a commendable model for reference. Structurally, the Panel could reflect a body such as the Commission for Integrated Transport. ⁹⁵
- 5.18** Where the **Road Safety Delivery Board** reports to the Transport Select Committee, the **Independent Panel** should report to parliament. The outputs of the panel could, in effect, offer another layer to information found in Road Casualties Great Britain by insisting on smarter use of data and offering specific insight into particular focus areas. PACTS would urge that the panel's focus is placed in a large part on investigating road deaths reflecting the fatality investigation team of the Swedish Road Administration (SRA).

Key conclusions

- 5.19** A national and general vision and strategy for road safety to 2020 is vital and will form the basis for road safety efforts over the next ten years. The strategy is an important cohesive element shared across casualty reduction partners.
- 5.20** A second strategic layer should generate the option for sub-targets and related strategies for area-types or location-types that they may best contribute to casualty reduction in their contexts.
- 5.21** This will require more complex road safety operations at the national and local level, including a greater emphasis on delivery and project management from DfT.

Recommendations from this chapter:

- DfT to take on a multi-tiered strategy, target and performance management approach.
- DfT to invest in expanding the reach and function of its Delivery Team.
- DfT to take on a holistic and sustainable vision for road safety over the next ten years and beyond.
- The next strategy to include a national target for reduction of road death and slight casualty rate.
- Government to create two public bodies with responsibility of independent road safety monitoring.

Appendix 1: Endnotes

- 1 <http://www.etsc.eu/PIN.php>
- 2 <http://www.dft.gov.uk/pgr/roadsafety/strategytargetsperformance/tomorrowsroadssaferforeveryo4866>
- 3 <http://www.dft.gov.uk/pgr/roadsafety/strategytargetsperformance/2ndreview/>
- 4 <http://www.dft.gov.uk/pgr/roadsafety/laguidance/localroadsafetystrategies.pdf>
- 5 <http://www.dft.gov.uk/pgr/roadsafety/strategytargetsperformance/tomorrowsroadssaferforeveryone>
- 6 <http://www.pacts.org.uk/docs/pdf-bank/SaferWay%20Response.pdf>
- 7 <http://www.statistics.gov.uk/STATBASE/ssdataset.asp?vlnk=6515>
- 8 <http://www.dft.gov.uk/pgr/statistics/datatablespublications/accidents/casualtiesgbar/>
- 9 <http://www.dft.gov.uk/pgr/roadsafety/strategytargetsperformance/tomorrowsroadssaferforeveryone>
- 10 <http://www.dft.gov.uk/pgr/roadsafety/strategytargetsperformance/tomorrowsroadssaferforeveryone>
- 11 http://www.dft.gov.uk/pgr/roadsafety/strategytargetsperformance/coll_tomorrowsroadssaferforevery/fullreportinpdfformat.pdf
- 12 <http://www.dft.gov.uk/pgr/roadsafety/strategytargetsperformance/2ndreview/>
- 13 <http://www.dft.gov.uk/pgr/roadsafety/child/droadsafetyachievingthe24630.pdf>
- 14 <http://www.dft.gov.uk/pgr/roadsafety/strategytargetsperformance/rsap/>
- 15 <http://www.dft.gov.uk/pgr/roadsafety/rspg/>
- 16 <http://www.dft.gov.uk/adobepdf/162469/221412/221549/227755/rrcgb2008.pdf>
- 17 <http://www.statistics.gov.uk/statbase/Product.asp?vlnk=94>
- 18 <http://www.dft.gov.uk/adobepdf/162469/221412/221549/227755/rrcgb2008.pdf>
- 19 DTLR (2001) Road Accidents Great Britain: 2000
- 20 <http://www.dft.gov.uk/pgr/statistics/datatablespublications/accidents/casualtiesgbar/rrcgb2008>
- 21 <http://www.dft.gov.uk/adobepdf/162469/221412/221549/227755/rrcgb2008.pdf>
- 22 <http://www2.cege.ucl.ac.uk/cts/research/chcaruse/>
- 23 <http://www.dft.gov.uk/adobepdf/162469/221412/221549/227755/rrcgb2008.pdf> Table 50
- 24 <http://www.dft.gov.uk/adobepdf/162469/221412/221549/227755/rrcgb2008.pdf> Chart 1g
- 25 <http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme5/underreportingofroadcasual.pdf>
- 26 <http://www.dft.gov.uk/adobepdf/162469/221412/221549/227755/rrcgb2008.pdf> Article 5
- 27 <http://www.dft.gov.uk/pgr/roadsafety/strategytargetsperformance/tomorrowsroadssaferforeveryo4866>
- 28 <http://www.dft.gov.uk/pgr/roadsafety/strategytargetsperformance/2ndreview/>
- 29 See TRL Reports (663) and (671)
- 30 TRL Report (663) 2007
- 31 TRL Report (663) 2007
- 32 TRL Report (663) 2007
- 33 <http://www.dft.gov.uk/adobepdf/162469/221412/221549/227755/rrcgb2008.pdf> Table 50
- 34 <http://www.dft.gov.uk/adobepdf/162469/221412/221531/223955/3227431/NTS2007.pdf>
- 35 TRL Report (671) 2009
- 36 Of which Great Britain makes up the majority.
- 37 <http://www.statistics.gov.uk/cci/nugget.asp?ID=949>
- 38 Which is 10.
- 39 <http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme5/poorwaytodie.pdf>
- 40 <http://www.nrsi.org.uk/nrsi/>
- 41 <http://www.nrsi.org.uk/nrsi/userimages/Interim%20report%20PB%20V2%20feb%2006%20no%20pics.doc>
- 42 <http://www.dft.gov.uk/adobepdf/162469/221412/221546/226956/261695/roadstats08tsc.pdf>
- 43 A number which has been subject to a great deal of fluctuation since 2001.
- 44 <http://www.dft.gov.uk/adobepdf/162469/221412/221531/223955/32274311/NTS2008.pdf>
- 45 <http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme2/rsrr85.pdf>
- 46 <http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme2/attitidestosafety/pdf/trl-ppr442.pdf/>
- 47 <http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme1/ppr445.pdf>

Appendix 1: Endnotes continued

- 48 http://www.adph.org.uk/downloads/policies/take_action_on_active_travel.pdf
- 49 http://www.ctc.org.uk/resources/Campaigns/CTC_Safety_in_Numbers.pdf
- 50 <http://www.dft.gov.uk/cyclingengland/cycling-cities-towns/>
- 51 <http://www.dft.gov.uk/cyclingengland/site/wp-content/uploads/2008/08/valuing-the-benefits-of-cycling-full.pdf>
- 52 <http://www.pacts.org.uk/docs/pdf-bank/Behave%20Yourself%20Final1.pdf>
- 53 <http://www.dft.gov.uk/consultations/closed/roadsafetyconsultation/>
- 54 <http://www.eurorap.org/>
- 55 http://londonroadsafety.tfl.gov.uk/about-us_how-we-work.php
- 56 <http://www.dft.gov.uk/about/howthedftworks/psa/>
- 57 Her Majesty's Stationery Office(1996) Aspects of Britain: Local Government,
- 58 <http://www.statistics.gov.uk/geography/metropolitan.asp>
- 59 Data from
<http://www.dft.gov.uk/pgr/statistics/datatablespublications/accidents/casualtieslatables/roadcasualtieslocal08>
- 60 Data from
<http://www.dft.gov.uk/pgr/statistics/datatablespublications/accidents/casualtieslatables/roadcasualtieslocal08>
- 61 <http://www.communities.gov.uk/documents/citiesandregions/pdf/131290.pdf>
http://news.bbc.co.uk/1/shared/spl/hi/uk/05/born_abroad/html/overview.stm
- 62 <http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme1/roadaccidentinvolvementofchi4740?page=7#a1019>
- 63
- 64 TRL Published Project Report (PPR200) 2007
- 65 <http://www.dft.gov.uk/adobepdf/162469/221412/221546/226956/261695/roadstats08tsc.pdf>
- 66 <http://www.eurorap.org/>
- 67 [http://commons.wikimedia.org/wiki/File:Map_of_NUTS_3_areas_in_England_by_GVA_per_capita_\(1995\).png](http://commons.wikimedia.org/wiki/File:Map_of_NUTS_3_areas_in_England_by_GVA_per_capita_(1995).png)
- 68 <http://www.poverty.org.uk/summary/maps.shtml>
- 69 <http://www.statistics.gov.uk/census2001/maps.asp>
- 70 <http://www.dft.gov.uk/pgr/statistics/datatablespublications/public/>
- 71 <http://www.roadsafetyanalysis.org/>
- 72 http://londonroadsafety.tfl.gov.uk/www/downloads/publications/report_200907_towards2010.pdf
- 73 Data and charts provided by DfT Road Accident Statistics Team
- 74 Cycling in London Final Report October 2008 (TfL)
- 75 <http://www.lcc.org.uk/index.asp?PageID=242>
- 76 Cycling in London Final Report October 2008 (TfL)
- 77 http://www.tfl.gov.uk/microsites/freight/hgvs_and_road_safety.aspx
- 78 http://londonroadsafety.tfl.gov.uk/about-us_how-we-work.php
- 79 <http://www.gos.gov.uk/gol/>
- 80 <http://wales.gov.uk/topics/statistics/headlines/trans2009/hdw200910272/?lang=en>
- 81 <http://www.roadsafetywales.org.uk/press/rswwchairpress.htm>
- 82 <http://www.eurorap.org/>
- 83 <http://wales.gov.uk/docs/statistics/2009/090929wimd08sumoveralle.pdf>
- 84 It is likely that road safety issues in the urban centres such as Swansea, Cardiff and Port Talbot do have strong links with deprivation but this report did not have sufficient data to investigate further.
- 85 Scotland does have a separate road safety strategy but should still have close working ties with England Wales and Northern Ireland.
- 86 <http://www.roadsafetywales.org.uk/strategies/info/rss.pdf>
- 87 Again, police force areas have been used to reduce data fluctuation at the local Authority level.
- 88 <http://www.scotland.gov.uk/News/Releases/2009/11/23124303>

Appendix 1: Endnotes continued

- 89 <http://www.gro-scotland.gov.uk/files2/stats/life-expectancy-for-administrative-areas-within-scotland-2006-2008/j1114404.htm#33>
- 90 <http://police.homeoffice.gov.uk/performance-and-measurement/performance-assessment/apacs-2008-2009/index.html>
- 91 <http://www.pacts.org.uk/research.php?id=8>
- 92 <http://www.visionzeroinitiative.com/en/Concept/>
- 93 http://www.swov.nl/rapport/Factsheets/UK/FS_Sustainable_Safety_principles.pdf
- 94 http://www.public-standards.gov.uk/Library/Seven_principles.doc
- 95 <http://www.cfit.gov.uk/>

Appendix 2: Contributors

Below is a list of the organisations consulted with for this report. Our conclusions are not necessarily endorsed by these organisations and reflect only a PACTS perspective:

Association of Chief Police Officers (ACPO)
Bradford City Council
Calderdale Council
Camden Borough Council
Chief Fire Officers Association (CFOA)
Department for Transport (DfT)
Devon County Council
European Transport Safety Council (ETSC)
Gloucestershire County Council
Hackney Borough Council
Kent Fire Service
Kirklees Council
Leeds City Council
Norfolk County Council
Northamptonshire County Council
North Somerset Council
Road Safety Wales
Suffolk County Council
Southampton City Council
South Yorkshire Police
Sussex Police
SWOV
Telford and Wrekin Council
Transport for Buckinghamshire
Transport for London (TfL)
Transport Research Laboratory (TRL)
Transport Scotland
Ty Gwent Council
Welsh Assembly Government



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