

INNOVATIVE ENGLISH CASUALTY REDUCTION

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1. INTRODUCTION

This paper focuses on a set of innovative projects implemented by English local authorities and supported by the Department for Transport (DfT). Some of the road safety interventions were formulated by the local authorities and the Department has provided financial support to ensure the lessons learnt are transferred. Others are responses by local authorities to outline project specifications developed by the Department.

So whilst I will be speaking on behalf of the Department for Transport, I emphasise that the projects I will be talking about are local authority projects, in many cases implemented with the help of other partners locally. I will be speaking to some slides (mainly photographs) rather than to the whole of this paper on 1st May, but I will be happy to take questions on any issue raised in the paper.

2. SOME INTERSTING MAINSTREAM RESULTS

2.1 Highway Engineering

To assist the development of the consultation document about the new road safety strategy for Great Britain, the Department researched the casualty impacts and costs of the local safety engineering schemes implemented by 22 English local authorities in 2004/05.

This group of schemes, which cost £16.6m to build, represented about one seventh of the total investment in local safety schemes made in England outside London during 2004/05.

Main findings: 2004/05 Local Authority Programme

Average first year rate of return: 140% to 160%
(including adjustments to account for downward casualty trends, site selection bias and extra non-construction costs)

Average of 4 deaths or serious injuries and 17 other casualties per year saved per million pound invested.

In England outside London the local authority engineering programme of 2004/05 reduced road deaths by an estimated 54, serious injuries by about 361 and slight injuries by 1,890, in each of the three subsequent years.

The average projected return for the equivalent 2007/08 programme is nearly as high as the forecasts were for 2004/05.

2.2. Safety Cameras

Evaluations around the world have shown repeatedly that cameras reduce vehicle speeds, crashes, deaths and serious injuries at camera sites.

Initial evidence from average speed camera sites is now appearing which suggests they too are associated with large casualty reductions and also high compliance rates (with 85th percentile speeds less than the speed limits). Their cost per kilometre of road monitored is similar to the cost of one spot camera.

	Number	Casualty Reduction %	
		KSI	All
Average speed cameras (permanent sites)	22	66	51
Average speed cameras (at roadworks)	13	76	56
Spot cameras (2005 study)	4,000	42	22

DfT is keen to ensure the effects of average speed cameras are monitored in a robust and broadly consistent way, to inform their future deployment. Please would highway authorities contact johna.gray@df.t.gsi.gov.uk about sharing information about any new installations.

2.3 Speed Limits

Portsmouth City Council is the first local authority in England to implement an area-wide 20mph speed limit scheme on residential roads using speed limit signing alone i.e. terminal and repeater signs. For ease of installation the city was divided into six sectors, of which the first two to be implemented have been in place for a year

The scheme was implemented to formalise existing driver behaviour and to reduce the incidences of aggressive driving from drivers adopting inappropriate speeds. The aim was to ensure that the scheme was self-enforcing so as to avoid the need for specific police enforcement.

The recorded average speed reduction of 1.1 mph in Portsmouth is similar to that recorded from previous studies where signing alone had been used to implement 20 mph roads.

The reduction in average speed was not statistically significant. However, there were statistically significant reductions in average speeds (7mph reduction) at the relatively few sites with 'before' speeds above 24mph, although these average 'after' speeds were still in the 24-29mph average speed range.

Monitoring is in progress, with DfT and Portsmouth City Council aiming to publish an interim evaluation of the limits this July.

In addition DfT has started to receive some results about the impacts of speed limit changes, implemented in response to the DfT's speed limit circular number 1/06. One county, which has reduced speed limits on a number of the poorer standard sections of rural single carriageway road to 50 mph, has recorded casualty reductions on the roads of about 19%.

3. DEPARTMENT FOR TRANSPORT DEMONSTRATION PROJECTS

The Gloucester Safe City project ran from 1996 to 2001 and involved the concentrated application of local safety engineering schemes, alongside extra enforcement, education and public engagement. The evaluation of the project indicated it had led to reductions in casualty numbers and average severities in excess of the national trend. It led to the development of urban safety management guidelines, published in 2003 by DfT, the Institution of Highways and Transportation and the Transport Research Laboratory.

The success of the Gloucester project has led the Department to run several other demonstration projects for road safety, in respect of:

- ten mixed priority routes;
- an inner city area;
- four rural areas.

3.1 Mixed Priority Routes

The mixed priority routes scheme was launched in 2002. In many towns and cities there are streets which carry high levels of traffic and also have:

- a mix of residential and commercial use;
- a mix of road users, shoppers, cyclists, bus passengers and schoolchildren;
- confused arrangements for parking and deliveries;
- a need for economic regeneration and environmental improvement.

The DfT provided financial support for ten projects to tackle these issues. A key lesson from the implementation of these projects is that local authorities are best placed to initiate and deliver these improvements successfully.

The work indicated that authorities wishing to deliver similar projects will need to commit in a number of areas, including:

- **Invest to understand the problem:** Design teams must have a clear understanding of the issues. Authorities will need to invest in surveys early in the scheme development process.
- **Stakeholder engagement:** The design teams must have closer and more complete involvement with local stakeholders than normal. Project teams should possess the necessary consultation skills to complete this part of the process, and external help may be required (key partners may already be doing this work successfully).
- **Project management:** Because of the scale and duration of these schemes, project management skills and the drive to deliver are essential. Be prepared to enhance the project management capability of your in house team.
- **Political commitment:** Elected members' involvement encourages success and innovation. Make time for involvement with the public at key stages in the process. Be prepared to take a leading role in promoting partnership working, and learning from other authorities.

These schemes are complex and, while they generate significant benefits, they need skilled management to maximise the return on the investment

Successful schemes require:

- indicative costs from an early stage;
- identification and valuation of key risks;
- identification of appropriately skilled staff for each key element of the scheme;
- active engagement with other parts of the authority to get a better and more rounded solution;
- rigorous investigation of all potential funding sources;
- a continual challenge to conventional thinking;
- clear and early decisions about space allocation;
- significant and ongoing resource commitment.

DfT contributed £1m towards the cost of each of ten schemes:

Scheme	Cost £000s	Completion
Nantwich Road (A534), Crewe	2,133	Apr 05
Newland Avenue, Hull	1,700	Oct 05
Wandsworth Road (A3036), Lambeth	2,500	Feb 07
The Parade/Victoria Terrace (B4087), Leamington Spa	3,445	Oct 05
Renshaw Street/Berry Street (A5038), Liverpool	3,500	Dec 05
Rusholme, Manchester	2,935	Dec 04
Prince of Wales Road, Norwich	1,259	Jun 04
Cowley Road (B480), Oxford	1,300	Nov 05
St Peter's Street/Chequer Street (A1081), St Albans	4,500	Mar 07
Walworth Road (A215), Southwark	4,000	Apr 07

The schemes have achieved initial, substantial casualty reductions of between 24% and 60%. There have also been improvements to streetscape, reductions in vacant premises, more pedestrian and cyclist activity and improvements in air quality.

The Department has published a summary leaflet, practitioner guidance (local transport note 3/08), summary scheme report and ten project reports at: <http://www.dft.gov.uk/pgr/roadsafety/dpp/mp/>

The summary leaflet includes contact names and email addresses at each of the ten participating authorities.

The Department has also specifically contributed towards a few other similar engineering projects since, to test out variations on the theme:

- in Brighton highway engineering, bus modifications and targeted publicity have led to major improvements and casualty reductions on a major city centre route in the shopping area where there had been a track record of pedestrian/bus collisions, with the pedestrian casualties including foreign visitors;
- in Worthing (West Sussex) the aim is to halve the 5 injury crashes per year involving vulnerable road users through a mixed priority route style treatment to a sea front/ shopping area;
- in South Tyneside highways engineering (including extra Puffin crossings and cycleways plus supporting education and publicity) on the A184 has been associated with a reduction in vehicle speeds of 8mph and a reduced reliance on cars for short journeys.

These three projects have been taken forward under the road safety partnership grant programme and the Department anticipates publishing information about them in the course of 2009. Short outlines of the projects and contact names are at:

http://www.dft.gov.uk/pgr/roadsafety/rspg/summary_of_awards

3.2 Inner City Work

The Inner City Safety Demonstration project is a £6m project in inner city Birmingham. It started in 2004 and has recently been physically completed. The project has applied safety engineering techniques intensively to four parts of an ethnically diverse area east of the city centre. It has included treatments on some of the main circulatory streets, including some shopping streets, as well as side road traffic calming.

DfT and Birmingham City Council are working towards publishing an interim evaluation report in July.

The Neighbourhood Road Safety Initiative (NRSI) was set up in 2002. Fifteen local authorities in England (city and borough councils in the Midlands, North West and Yorkshire) were allocated funds to develop schemes to reduce road casualties in their most deprived areas. They were encouraged to come up with new, innovative approaches to road safety to try to reach into the most deprived areas.

Four key messages came through from those involved in the NRSI:

- The need to identify and target people as well as places.
- The major role that developing and sustaining partnerships can play in reaching target communities.
- Responding to the problems described by the community that may not show up in STATS19 data. Both are needed if projects are to succeed.
- Road safety is not a one-size-fits-all issue. Projects must be tailored to local circumstances.

The need for a multi-pronged approach to road safety continues to exist. Although highway engineering and enforcement measures can reduce casualties, the impact of both will be enhanced if the community is actively involved. Reports, including recommendations about good practice, can be found at:

<http://www.dft.gov.uk/pgr/roadsafety/dpp/neighbourhoodroadsafety/>

3.3 Rural Demonstration Projects

The Department for Transport is investing up to £8m in a set of Rural Road Safety Demonstration Projects to run for just over 2 years up until March 2010.

The Projects are intended to demonstrate good practice for local highway authorities in developing and implementing an evidence and data-led strategy for an identified area in each participating county to address rural road casualty reduction. It is intended that good practice guidance will be developed from the knowledge gained during the project, and that this will be disseminated to other highway authorities.

The four rural Road Safety Beacon Authorities¹, Devon, Lincolnshire, Norfolk, and Northamptonshire County Councils, have agreed to participate in the Rural Road Safety Demonstration Project. Each is receiving at least £1.5m from the Department for Transport to gather information about key problems facing drivers on their rural roads and develop innovative strategies to improve road safety. The strategies include a variety of education, enforcement and engineering measures.

Key measures being implemented include:

Devon

1. A behavioural psychologist's report to look at the A377 in the demonstration project area is due soon.
2. Installation of police observation platforms on a major road to facilitate enforcement, and influence driver behaviour, alongside targeted publicity and engineering.
3. A variation of the national speed limit sign (with the diagonal being green rather than black) to denote entry onto the minor rural road network. (This is also being planned by Norfolk).

Norfolk

1. Trialling of innovative methods for protecting problem trees (for example short sections of crash barrier).
2. Installation of retro-fitted recovery strips at identified problem locations on selected 'A' roads.
3. Use of rear-facing average speed cameras.
4. Vehicle activated signs that operate in wet conditions in area with high proportion of wet accidents.

¹ The Beacon Scheme was set up by the Department of Communities and Local Government to raise skills and standards within local government, and is intended to provide for those authorities awarded beacon status, opportunities to disseminate good practice, to influence the development of policy and to pilot new initiatives. In 2006, road safety was one of the themes for the Beacon Scheme. Besides the four authorities participating in the demonstration project, Knowsley Borough and Nottingham City Councils were designated as Beacon Authorities. Details are at: <http://www.beacons.idea.gov.uk/>

Northamptonshire

1. Creation of community forum to jointly develop solutions to road casualty issues within the 'rightracks' zone.
2. Use of automatic number plate recognition equipment to identify the origin of the vehicles using the roads within the zone to facilitate targeting of marketing.

Lincolnshire

1. Life Skills academy, which is to be self-sustaining after set-up.
2. Use of rear-facing average speed cameras.
3. Investigation into incidence of foreign drivers in serious collisions in Lincolnshire.
4. Awareness-raising over occupational road risk and mud on road issues.
5. Study to identify the incidence of roadside hazards in injury collisions, and to identify any patterns.

DfT is working towards publishing an interim evaluation of the four projects in July 2009. To contact the rural projects email:

ruraldemo@norfolk.gov.uk

countrymile@devon.gov.uk

naomi.cook@lincolnshire.gov.uk

or look at: <http://www.dft.gov.uk/pgr/roadsafety/dpp/rural/>

In addition it is also financially supporting a project along the B3157 Jurassic Coast route in Dorset. Interventions include route management to produce psychological/natural traffic calming and measures within villages to manage speed and to enhance pedestrian safety and access to services. Contact: a.ackerman@dorsetcc.gov.uk for more information.

4. EDUCATION, TRAINING AND PUBLICITY: ROAD SAFETY PARTNERSHIP GRANT

To further support local highway authorities in delivering casualty reduction targets locally, DfT launched an annual £4million Road Safety Partnership Grant Scheme at the end of October 2006, inviting bids from local highway authorities in England.

The Scheme promotes a collaborative approach to all aspects of delivering enhanced road safety. In particular it aims to encourage partnerships between traditional road safety professionals and other service providers including the education sector, the health sector, the fire service, the youth service and the voluntary sector. It also hopes to stimulate road safety schemes which produce environmental and regeneration benefits.

Details of the 45 successful projects for the first two rounds have been published on the DfT website at:

<http://www.dft.gov.uk/pgr/roadsafety/rspg/roadsafetypartnership0809> and

http://www.dft.gov.uk/pgr/roadsafety/rspg/summary_of_awards

A further 8 projects have recently been approved for the third round and their details are due to be posted on the DfT website soon. Their focus is on:

- Motorcyclist casualties on rural roads;
- Specific road safety problems amongst deprived or disadvantaged parts of the population;
- Operational experience of market-led Intelligent Speed Adaptation.

Implementation of the projects in the first round is due to be completed substantially by Spring 2009 and DfT intends to publish some of the interim evaluation work on them later in 2009. Topics that featured heavily in the first round include young drivers, older drivers and child pedestrians. Specific projects considered driving for work and seat belt wearing.

4.1 Road Safety Timebank

One partnership grant project has been to set up a 'Road Safety Time Bank'. It is an on-line resource designed to encourage road safety professionals to exchange and share information and ideas about problems and solutions which local data suggests they should be tackling. Each local authority is encouraged to register their projects, initiatives, schemes and interventions (both engineering and education/training/publicity based) so that others who face the same sort of problem can make contact and find out more through a personal visit or discussion. The Time Bank requires that each gives only as much time as they are prepared to do and receives the time or ideas of others in return.

This gives road safety and casualty reduction professionals the opportunity to learn from the work of a broad spectrum of their peers. Members of the Road Safety Time Bank gain access to the knowledge and expertise they need to help improve performance and add to their range of skills and services. More than half of English local highway authorities have joined. The current address of the site is: <http://www.roadsafetyhub.co.uk/>

4.2 Road Safety Market Analysis and Segmentation Tools ('MAST')

This partnership grant project builds on work done in the Thames Valley to integrate socio-demographic profiling as a standard tool in scoping road safety interventions with existing casualty and offence data. The project is developing further tools to enable road safety practitioners to access detailed market information and make informed choices about which areas to focus enforcement intervention and the correct communications channels to reach each audience in a relevant manner; especially vulnerable road users such as motorcyclists, young drivers, older drivers etc. This project is designed to develop the nascent study, maximising the benefits regionally whilst enabling access to the potential benefits nationally.

4.3 Other Partnership Grant Projects

Some other examples of partnership grant projects follow.

KIRKLEES:- YOUNG ADULTS – BUILDING ROAD SAFETY FOR LIFE	
Project summary	A 'whole life' approach aimed at 16-29 year car occupants who are disproportionately represented amongst casualties in Kirklees. Four groups targeted with specific road safety interventions: 1) Work related (Apprentice) training groups and 2) Further Education groups (combined); 3) Young teens and 4) Young people not in education, training or employment.
Project outcomes	<p>Work related training and Further Education Groups: The Brake "Too Young to Die" resource was adapted and piloted over 10 months (Sept'07–July'08) with 637 young people receiving the Kirklees version of training. 379 of these were students in Further Education / 47 of these were Council apprentices and 211 of these were apprentices studying at Huddersfield Technical College. Post (3 month) evaluation shows 75% of respondents felt they had improved their chances of surviving on the road by attending the course / making the 'pledges'.</p> <p>Young teens (developing safer drivers): Two resources were developed, piloted and launched as part of the curriculum in Kirklees (targeting Year 7 and Year 8 pupils). Workbooks and DVDs provided to all Kirklees Schools with 100 teachers trained to deliver 'Your Choice' and 'Tom's Day' resources. 10,000 young teens will have received training by Summer 2009. This work will be embedded in the PHSCE curriculum from 2009/10 onwards</p> <p>Young people not in education, training or employment: <i>Evaluation results not yet available</i></p>
Key lessons learned / processes changed	<p><i>"The project has allowed the road safety unit to foster stronger links with staff in the Young People's Service in Kirklees. They assisted in developing the early focus group sessions and also made it possible to embed the finished resources into the PHSCE curriculum".²</i></p> <p>Kirklees discovered issues that were bigger than originally thought within the young workers training group (in particular, drug driving) which will be considered further for future work.</p> <p>Gaining access to young people in work based training could be difficult with some businesses reluctant to allow trainers' access to young people, despite the fact that the training was free. To ensure sustainability, the training needs to be structured so that college trainers or employers can deliver themselves e.g. as part of own induction processes.³</p> <p>In trying to measure ETP impacts, in particular behaviour change, as the young driver scheme (potentially) continues it will be possible to collect more data about collision involvement (as used in the evaluation of Driver Training) but is likely to be difficult with this particular age group due to transient nature of age group where its difficult to maintain contact with them.</p>

² Kirklees – Young Teen Evaluation Report (03/03/09)

³ Kirklees – Evaluation Report 2008 – Brake 'Too young to die' (15/10/2008)



BRISTOL: BIKE GURU	
Project summary	<p>A partnership project between Bristol City Council and Life Cycle UK, to educate cyclists about the dangers of riding with no lights, of ignoring the Highway Code and of riding with faulty bicycles. Building upon a previous 'Be Safe, Be Seen' campaign, to run targeted road-shows for cyclists focussing on:</p> <ul style="list-style-type: none"> • Provision of low cost high-visibility clothing and lights to be fitted on the spot. • Informing and educating cyclists about the need to obey traffic signals/highway code • Quick maintenance checks by mechanics
Project outcomes	<p>1000+ cyclists were reached within the campaign, with evaluation showing</p> <ul style="list-style-type: none"> • Front light usage increased from 44% to 82% • Rear light usage increased from 52% to 91% • Wearing of high-visibility clothing increased from 25% to 42%. • Condition (maintenance) of increased from 42% to 54%
Key lessons learned / processes changed	<p>Website created at www.bikeguru.info with accompanying Information booklet.</p> <p>This project contributed to Bristol's later success in securing further funding award to become a 'Bike City'</p>



BRADFORD:- THE GREAT YORKSHIRE (street legal) CRUISE™	
Project summary	A community engagement and driver education initiative across West Yorkshire in the form of a “show & shine” event (26 th April 2008), designed to engage with a hard-to-reach target audience and educate them about their driving risks and responsibilities, while providing the opportunity to display their customised cars and gain recognition and peer group respect.
Project outcomes	Pre and post casualty data, compared with data in the same period for previous years, show a marked drop in target group (18% reduction in KSI's with 27% reduction in casualties overall). The figures were compiled alongside a control group, which shows no similar marked drop.
Key lessons learned / processes changed	For the first time, an alliance was formed with Bradford Cruisers and through them, with Pontefract and Wakefield cruiser groups ⁴ , helped in the creation and event campaign via www.greatyorkshirecruise.com Details of the 250 cruise demonstrators has been absorbed into the larger database of SCaN readers (free newsletter of West Yorkshire Casualty Reduction Partners) with an opportunity to unsubscribe. To date, only 3 have unsubscribed meaning opportunities to engage with 247 hard to reach target group can be built on.



⁴ Final PJG 09a Cruise Report (08/08/08)

CALDERDALE:- SEAT BELTS ON IN CALDERDALE	
Project summary	To increase seat belt wearing levels across the district, with a specific focus upon ethnic minority groups, with the aim to reduce the inequality in car occupant casualties in ethnic minority groups whilst at the same time increasing seat belt wearing levels in all groups in the district. Main focus will be child passengers and will include ETP, enforcement and engineering (roadside posters)
Project outcomes	Targeted education, publicity and enforcement has led to increases in seatbelt wearing rates amongst both the majority white and the minority Asian populations. The approach involved partnership, including commercial sponsorship, between the local authority and schools, emergency services, media and communities. Even after police enforcement declined, seatbelt wearing rates are far higher than before the work started, increasing compliance rates amongst the minority population from less than half to 85%. Calderdale's casualties have fallen faster than the wider area and there has been an even faster reduction in car occupant casualties amongst British Asians locally. For more details see http://www.seatbelton.org/ .
Key lessons learned / processes changed	<p><i>"A partnership approach (including commercial sponsorship), using a mix of (high-low) enforcement and education alongside publicity throughout, with a range of interventions, avoided a 'one hit wonder campaign'... there was evidence that this (approach worked). Seat belt wearing rates for both the majority White and minority Asian populations had risen, and stayed, above original base line, even once police enforcement declined"⁵.</i></p> <p>Calderdale have acted as consultants to the remaining 4 West Yorkshire authorities on 'How to run a Campaign', with a regional campaign launch planned for April 2009.</p> <p>Dr.Lockey of the NHS Trust was awarded a Health & Social Care Hero Award for his role in the Calderdale seat-belt project. A ministerial visit in November 2008 led to an invitation to a family who had taken part in the campaign for lunch and a tour of the House of Commons.</p>

5. FURTHER INFORMATION

Besides the contacts listed above, there is material published about these and other projects on the Department for Transport website, which includes in nearly all cases contacts at the local authorities. (Go to the home page, then 'policy, guidance and research', then 'road safety' and most of the projects are under either 'demonstration and partnership projects' or 'road safety partnership grant scheme'.) If you cannot find anyone or anything important feel free to contact me at duncan.price@dft.gsi.gov.uk or on 020 7944 2241.

⁵ Calderdale Final Report (02/03/09)

