Bringing Bikers Out of the Blindspot

Case Study

Michael Newcombe
Road Safety Officer

www.devon.gov.uk/road_safety
Original problem in Devon

• In 2002, motorcyclists made up around 25% of all road fatalities in the County despite only making up 2% of traffic

• 100 motorcyclists were either killed or seriously injured
Breakdown of rider types

• Leisure riders
  – Leisure riding attracts large amounts of riders to the region

• Commuter / work related riders
  – Social exclusion factors / rural communities
  – Poor public transport links

• Social riders
  – Similar characteristics to commuter riders
Bringing Bikers out of the Blindspot

• Launched in July 2003

• Aim of the campaign: “To encourage the safe sensible use of motorcycles”
Partnership approach

- Devon & Cornwall Police
- Local bike groups
- Dealers / trainers
- National groups MAG, BMF etc.
- Individual riders
Data led campaign based on 3 stages

• Research & consult
• Target & deliver
• Audit & review
Report allowing Devon County Council to understand better the causation factors for motorcycle collisions in the area

Motorcycle Crashes

www.devon.gov.uk/roadsafe/motorcycles.html

A scoping study looking at motorbike crash data in Devon 1996-2001

Devon County Council

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Research & Consult

• Biker consultation form available in paper format and on-line version
• Approximately 500 forms completed
Research & Consult

- On-line biker forum
  - 70,000 hits
  - 350 contributions
  - Over 60 contributors
Analysis of crash locations:

• Urban roads: conflict between bikes and other vehicles

• Rural roads: single vehicle collisions where the rider has lost control and left the carriageway
Example of results from the Research & Consult process

- Better training options for all rider types
- KSI problem for riders in 30 – 45 year age group
- Concerns over road surface, particularly diesel spillage and manhole covers
- Needs for bike sensitive road designs
- Bike awareness education for car drivers
- Specific crash problems in rural and urban areas
- Use of bus lanes for motorcyclists
- Create a better image for motorcyclists

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Target & Deliver

• Training: Rider Development Course
  – Flexible training depending on needs
  – Affordable
  – Consultation has helped make the course effective
  – Accessible
Target & Deliver

• Driver awareness
Target & Deliver

• Urban route strategy
  – Two main problems highlighted as causation factors:
    • Vehicles turning right into the path of bikers
    • Vehicles emerging from junctions
  – Signs to be located in areas where bikers have previously experienced problems
  – Ongoing consultation phase allowing riders to suggest roads which they want signing

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Target & Deliver

• Urban route strategy
Target & Deliver

• Rural route strategy
  – Leisure riding attracts large numbers of riders to the region and some routes are promoted as a challenging run
  – 33 riders killed or injured on the A377 in the last 5 years
  – Mixed bag of collision types, rider profiles and times of day and year
  – Strategy aimed at all road users, not just bikers
  – Signs located at collision site clusters
Target & Deliver
Target & Deliver

- Raise the awareness of the problem
- Encourage the reporting of diesel spills
- Education drive aimed at potentially culpable parties

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Devon County Council

Target & Deliver

• VOSA
• Filling stations
• Defra
• Freight Quality Partnerships
• Fleet companies
• Bus companies
• DCC fleet

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Target & Deliver

Multi-media message

Bikes were amazing fun
- total freedom
- exhilarating speeds.

These days I travel at a slower pace.

Have fun this summer but **Ride for Life!**

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I love bikes - I'm an enthusiast myself.

But I have to deal with the consequences of irresponsible speeds.

Please make sure I'm not calling on your family this summer.

**RIDE FOR LIFE**
Target & Deliver

Vulnerable road users training courses

- Engineers
- Technicians
- RSOs
- Accident Investigators
- Police Officers

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Target & Deliver

- Intervention for violating riders
- Rider Risk Reduction course
- Dr Cris Burgess

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Rider Risk Reduction scheme - Introduction

• Motorcyclists over-represented in KSI statistics (Hewson, 2002; DfT)
  – 1-2% of road traffic (by miles covered)
  – 25-35% of KSI collisions involve motorcycles

• Target group
  – Riders of ‘large capacity’ machines
  – Men, 30-45 yrs

• Development
  – Empirical evidence
  – Police, fire and rescue, paramedic (inc. Air Ambulance Trust)
Rider Risk Reduction scheme - Operation

- Devon County Council
  - Initiative and financial support
- Devon & Cornwall Police
  - ‘Operation Rider’
- Referral criteria
  - Police diversion
  - Motorcycle 500cc+ capacity
  - Fixed penalty ticket
  - Rider would benefit from ‘attitude reorientation’
Rider Risk Reduction scheme – Objectives

• **Aim**
  – prevent further unnecessary deaths of motorcyclists on Devon’s roads

• **Objectives**
  – **NOT** to stop clients from riding
  – to give clients a sense of their own vulnerability (again?)
  – to help clients understand their human limitations
  – to provide clients with enough information for them to make realistic assessments of risks involved in riding bikes, each time they go out
Rider Risk Reduction scheme - Approach

- Novice drivers and riders need basic skills
- Experienced drivers and riders may need new skills
  - Skills must be applied appropriately
  - Increasing skills increases sense of control over driving environment
  - Increasing sense of control increases confidence
  - Increasing confidence increases likelihood of ‘risky’ behaviour
- Traditional advanced rider training is potentially beneficial
  - But, need to talk to the head before we train the body
Rider Risk Reduction scheme - Approach

- What do we know about behavioural change?
- Riding bikes can be an addictive behaviour
  - mood modification, tolerance, withdrawal
    - compare with joyriding (Kellett & Gross, 2005)
- What can Health Psychology tell us?
  - Transtheoretical stage model of behaviour change
Stage model of behavioural change

- **Precontemplation**
  - Unaware of issue
- **Contemplation**
  - Unconcerned by issue
  - Deciding about acting
- **Preparation**
  - Decided to act
  - Decided not to act
- **Action**
  - Changing behaviour
- **Maintenance**
  - Maintaining changes

(Prochaska & DiClemente, 1982)
Stage model of behavioural change

<table>
<thead>
<tr>
<th>Unaware of issue</th>
<th>Maybe there’s a problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unengaged by issue</td>
<td>Maybe I’m a part of the problem</td>
</tr>
<tr>
<td>Deciding about acting</td>
<td>Maybe that’s a bad thing</td>
</tr>
<tr>
<td>Decided to act</td>
<td>How does it happen?</td>
</tr>
<tr>
<td>Acting</td>
<td>What can I do about it?</td>
</tr>
<tr>
<td>Maintenance</td>
<td>How can I keep doing that?</td>
</tr>
</tbody>
</table>

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Rider Risk Reduction scheme - Evaluation

• Self-report feedback
  – “I was expecting lots of pictures of what happens when it goes wrong. Instead it highlighted what goes wrong and why.”
  – “This has given me greater understanding of my limitations and how to stay well within them whilst keeping something in reserve for the unexpected. It’s as much fun if not more fun too.”
  – “I believe it may have saved my life.”

• Readiness to Change Questionnaire (RCQ; Burgess, in press)
  – Evaluation methodologies should be based on same model as intervention itself
Rider Risk Reduction scheme - Dissemination

• National Rider Improvement Scheme working party
  – Lancashire County Council – ‘RiDE’ scheme

• Driver Behaviour & Training Conference – Edinburgh 2005
  – Kirklees Metropolitan Council/ DSA – Motorcyclist ‘Pass Plus’
  – West Berkshire Council/Thames Valley Police – offender retraining

• International Congress in Applied Psychology – Athens 2006
Target & Deliver

• Improving road conditions for motorcyclists

• Materials Laboratory

• Keith Grant
SMA - Current Problems

• Reports of accidents on newly laid SMA
• Problems reported by:
  – Police
  – Motorcyclists
  – Motorists
  – Horse riders
• Difficulty/controversy in resolving relevance of “wet skid” & “dry skid”
The Argument for Gritting SMA
Customer Feedback

• “…. crossroads on her shod horse and also reported it as being grippy with no slip at all. .... has a horrible camber as you travel north over crossroads so knowing it is grippy despite it sloping away is very reassuring”
Measuring Pedestrian/Vehicle Slip/Skid Potential
ePSV – understanding how aggregates perform in the “real world”

<table>
<thead>
<tr>
<th>Quarry</th>
<th>Aggregate type</th>
<th>PSV</th>
<th>EPSV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bardon - Venn</td>
<td>Gritstone</td>
<td>65 &amp; 60</td>
<td>60 to 64</td>
</tr>
<tr>
<td>Hanson - Barton Wood</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bardon – Blackhill</td>
<td>Quartzite</td>
<td>53</td>
<td>55 to 59</td>
</tr>
<tr>
<td>Bardon - Hillhead</td>
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<tr>
<td>Hanson - Redball</td>
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<tr>
<td>Bardon - Greystone</td>
<td>Basalt</td>
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<td>50 to 54</td>
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<tr>
<td>Hanson - Trusham</td>
<td>Basalt</td>
<td>54 &amp; 54</td>
<td>45 to 49</td>
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<td>Wainwrights - Moonshill</td>
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<tr>
<td>Hanson - Hingston Down</td>
<td>Basalt</td>
<td>54</td>
<td>45 to 49</td>
</tr>
<tr>
<td>Hanson - Hingston Down</td>
<td>Granite</td>
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Effective PSV – safe roads are a year-round requirement

![Graph showing speed limits by month from January to December. The graph indicates varying speed limits throughout the year, with peaks in January and July and troughs in August and September.](image-url)
Bikers can help shape the way training is given

Death crash mum backs safety push

Courses set to aid Devon bikers’ safety

Killer spills campaign
A NEW campaign has been launched to highlight the dangers faced by motorcyclists from diesel spills on Devon’s roads. Organised by Devon County Council’s road safety team, the initiative, called Spiller Killer, aims to raise awareness of the problem and the potential dangers to road users, as well as encouraging drivers to report diesel spills so that the local authority can take action. The initiative is part of the Bringing Bikers Out Of The Blindspot campaign.

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Audit & Review

• Publicity
A joint campaign by Devon County Council's Traffic and Highways Department, supported by the Motorcycle Action Group and Devon Advanced Motorcyclists.

In July 2003 Devon County Council Road Safety Team launched a city-wide scheme to help solve the problem of bike thefts, and called for action to improve the safety of cyclists in the County. The campaign was well received by the public, and the response was very positive. This edition of newsletter shows the results of the consultation as well as the other work we are currently undertaking to improve rider safety.

Audit & Review

Publicity
Summary of outputs and outcomes

• Research of crash data
  – Copies have been requested by from numerous LAs
• Research of user opinion
• Development of training courses
• Multi-media biker safety promotions
• Improved road conditions
• Sympathetic road layouts
• VRU standard feature in driver training
Summary of outputs and outcomes

• Ongoing feedback & data collection
• Long term support & involvement from partners
• This work has been highlighted good practice by the IHIE in their latest guidelines
• 100 riders passed through the RRR course with excellent results in their anon. feedback
• TRL Benchmarking Group has allowed us share our initiatives

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Summary of outputs and outcomes

• 30% drop in biker KSIs between 2002 to 2004