



Motorcycle Casualty Reduction Problem Solving Oriented Policing on the A686

Force: Cumbria Constabulary

Chief Officer: Michael Baxter

Contact: Sgt John Forrester

Address: HQ Road Policing Unit,
Carleton Hall,
Penrith.
Cumbria.
CA10-2AU

Telephone No: 01768-217252

Fax No: 01768-217281

Table of Contents

Table of Contents.....	2
Table of Figures.....	2
Problem Definition.....	4
Scanning.....	4
Questioning.....	5
Analysis.....	5
Responses.....	8
Evaluation.....	8
Partnership/Delivery.....	9
References.....	9

Table of Figures

Figure 1 A686 Actual and Projected KSI's.....	5
Figure 2 KSI Casualty trend by month.....	6
Figure 3 Accidents by Time of Day.....	6
Figure 4 Collisions by day of week.....	7
Figure 5 Casualty home location by region.....	7

Summary

When discussing vulnerable user groups in road safety terms, pensioners and children are two groups that immediately spring to mind. People do not generally consider "outlaw" elements such as motorcyclists as "in danger."

Cumbria has some of the most beautiful yet potentially lethal roads in the country and, from a motorcyclist's point of view, some of the most challenging. Long sweeping curves, savage bends that double back on themselves, sudden dips and blind summits make this stretch of road one of the most demanding in the UK. Such conditions drain mental and physical resources, the resultant lack of concentration means that rider accidents are common and, because of vulnerability, often fatal.

There are some people who believe that bikers are a law unto themselves and beyond reason, but a programme of heavy monitoring and enforcement of the A686 during the elongated 2003 spring and summer season by the Cumbria Constabulary MSG and Cumbria Safety Camera initiative kept killed and serious injury (KSI) accidents well below the national average.

On top of the concern regarding KSIs, there have been community aspects to consider. Residents living along the motorcycle routes have been subjected to high speeds and unacceptable levels of noise from illegal exhausts leading to drops in standards of living.

A triumvirate of traffic management officers, MSG officers and the county's safety camera team spent much of the winter looking at accident statistics to develop a proactive strategy based on education, engineering and, lastly, enforcement.

Contrary to the belief that "number crunching" is boring, analysis of the accident statistics established a fascinating overview covering rider behaviour and collision patterns. As well as enabling the action group to plan a strategy for 2003 and for effective PR initiatives to be based on hard facts rather than intuitive guesswork and rhetoric.

What started off in 2003 as an ad hoc campaign that gained momentum as its efficacy was established has grown into a comprehensive and strategic plan underpinned by a greater understanding of the factors governing motorcycle KSI's. This, together with effective and educational PR through a co-operative local and regional media, will lead us into a positive and proactive road safety campaign for 2004 and beyond.

A686 Motorcycle casualty reduction

The A686 is a 19-mile stretch of road between Penrith and Alston. The road winds its way up over 1000 meters through scenic villages and some of the wildest countryside Cumbria can offer. This stretch of road is renowned amongst the weekend biker fraternity as one of the ten best motorcycle routes in Europe. The AA has also nominated it as one of the most scenic drives in the UK.

During the summer biker season - April through September - thousands of bikers travel the route to enjoy the views and check out riding skills and machine performance. The route is a notorious casualty hotspot, accounting for 2 Fatal and 7 serious collisions in 2003 alone.

The problems associated with this route are blind hairpin bends, undulating road surface, contamination of the road surface, slow moving tourist and agricultural traffic, wildlife and livestock crossing the road.

Motorcycle collision data on the A686 from the past ten years has been collated to provide information on the problem on why and when they occur, thus providing an intelligence-led police solution to combat the problem and reduce the number of motorcycle casualties on the route. This in turn will assist in reducing the overall casualty figures for the county.

Analysis of motorcycle collision data for this route identified, causation factors, locations, time and day of accidents, rider age group and geographic origin. This information was used to target the problem in a number of areas to reduce the high number of casualties on this road for 2003/2004.

Methodologies to achieve this includes:

- Rider education through a Cumbria Safety Camera's (CSC) 'Don't Crunch After Lunch' leaflets distributed via motorcycle magazines and biker rest area's highlighting the problems of fatigue and loss of concentration after midday which is when the majority of accidents occur
- Rider education cascaded by police motorcyclists in West Cumbria seek to deliver focused riding advice and defensive riding techniques, later assessed in a practical ride out.
- Coordinated National 'BikeSafe' events.
- Individual initiatives by concerned officers and stakeholders.
- PR vehicle at motorcycle rest areas offering advice and education
- Coordinated enforcement using Mobile MSG and Cumbria Safety Cameras
- Participation in a Safer Roads for Cumbria campaign as part of a council driven Local Public Service Agreement (LPSA) initiative.

Working in partnership with the police, safety camera scheme, Capita and the County Council it is felt that this project maximizes effective and efficient resourcing, providing an ongoing solution in reducing KSI's in the target group, and county casualty figures.

Problem Definition

The A686 in Cumbria has been identified as having an increasing trend in KSI collisions. There was a significant increase in collisions between 2000 and 2002 in excess of the underlying increases between 1994 and 2002. KSI accidents were masked in 2001 when inter-county road restrictions were imposed due to the foot and mouth disease epidemic.

The vehicle groups identified in the majority of KSI accidents on this route were motorcyclists. Nearly 70% of motorcycle collisions resulted in a serious injury. Most accidents occurred in the afternoon.

Scanning

Ten years of collision data for the A686 has been collated into a master database and this was used to identify collision trends and create a comprehensive overview of rider behaviour and patterns.

Traffic Management Officer (TMO) information was used to enhance and further identify additional trends relating to the problem.

Experienced traffic officers, particularly those from motorcycle patrols who build up informal and informative relationships with riders, were asked for their input and practical solutions to this ever increasing vulnerable road user group.

National motorcycle magazines were examined to gather intelligence regarding motorcyclist's likely movements within the county in respect of organised events and ride outs. Electronic motorcycle forums were monitored to provide more accurate information on a day-by-day basis.

Postal code records during 2003 identified rider geographic origin enabling education campaigns to directly target the groups involved in collisions.

Questioning

Police officers visited local schools to canvas children who are also identified as a vulnerable road user group. This would involve them directly in producing graphic posters based upon a road safety theme aimed directly at motorcyclists. These were later displayed within Hartside Café, which has a long association with riders on the mid section of the A686 route. The café proprietor is pro-active and keen to promote road safety in association with ourselves. The owner now promotes road safety leaflets and associated posters for display and distribution.

A history of complaints exist from local residents who had complained about speed and noise pollution problems from the presence of motorcycles traveling this route and its environs. Police officers' experience and local knowledge was used to provide a history regarding motorcycle problems along the route.

National Biking events have a direct influence on the number of bikers traveling the route.

Analysis

The Safety Camera Data Analyst carried out analysis of 10 years worth of casualty data.

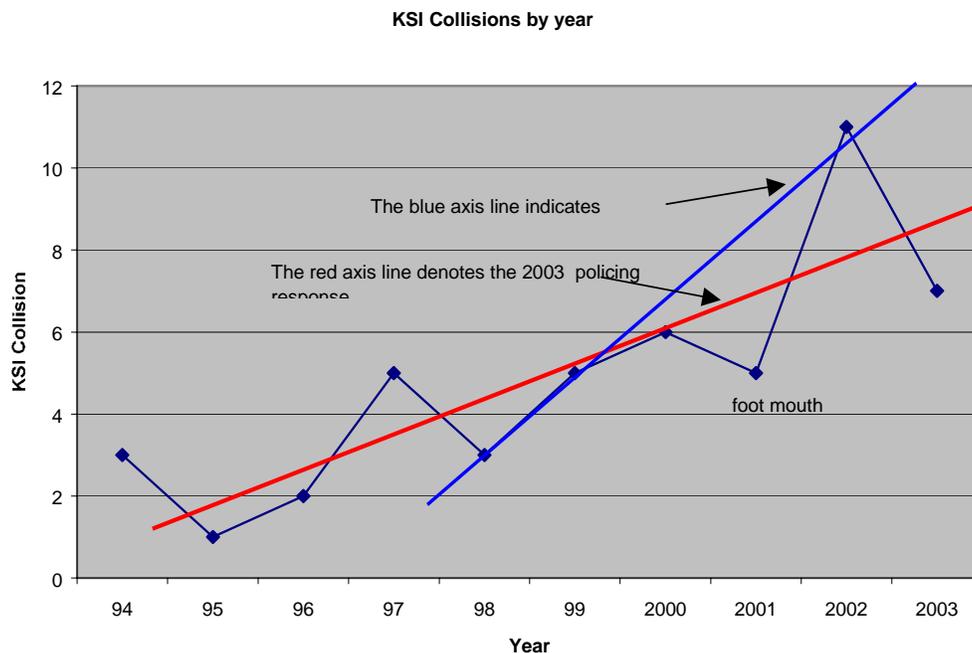


Figure 1 A686 Actual and Projected KSI's

With reference to Fig 1, this indicates an increasing trend in KSI's between the period 1994 and 2003 (highlighted in blue). Closer examination of the data revealed that in 2001 the presence of Foot and Mouth disease in this and the adjoining counties had an impact on the number of visitors.

The figures for 2002 showed a continuing upward trend.

In 2003 we were able to reduce the number of KSI's (highlighted in red) by pro-active enforcement and management of this problem. By using the available data, we were able to format and link an intelligent led policing approach.

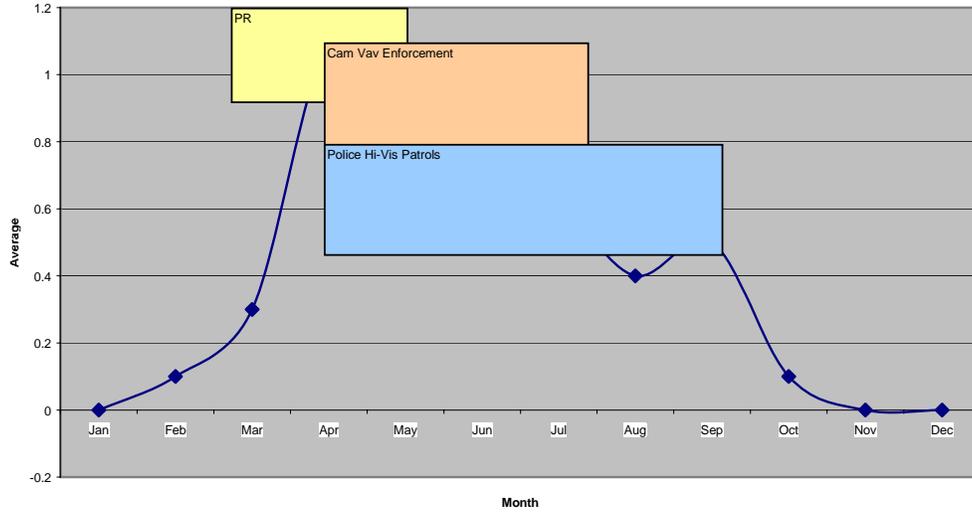


Figure 2 KSI Casualty trend by month

Analysis of the collision data shows that motorcyclists are most at risk at the beginning of April. This corresponds with the start of the motorcycle season when previously learnt skills have declined over the winter months. This also coincides with the additional increase of motorcycles on the road due to winter promotional sales by dealers.

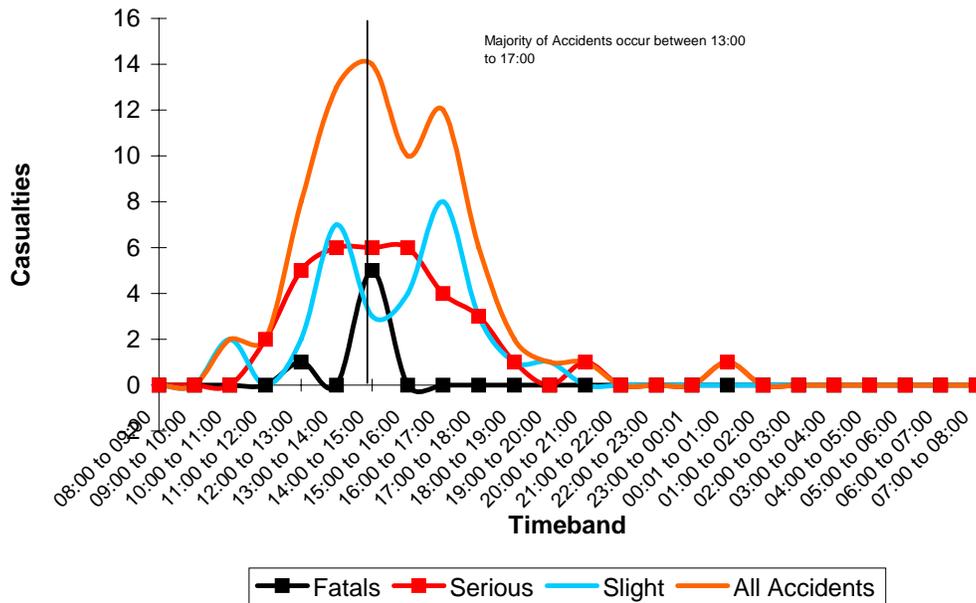


Figure 3 Accidents by Time of Day

Analysis of collision data over the past 10 years show that the majority of motor cycle collisions occur after lunch. Collision data supported by police incident reports indicate the critical period for being involved in a collision is after lunch. This data provides target times when high visibility police and safety camera enforcement is essential. This type of response is supported by the pre season and on going education and PR campaigns.

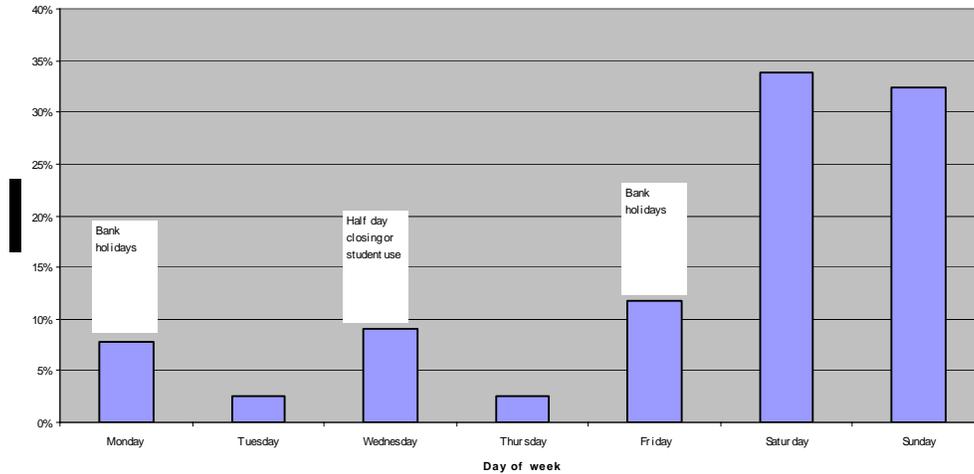


Figure 4 Collisions by day of week

Analysis of collision data showed that the majority of collisions occur at weekends and bank holidays. The anomalies of Figure 4 are influenced by the distribution of public holidays. A closer look at data relating to Wednesdays was thought to coincide with student mid week half days.

Motor Cycle casualty place of residence 2003

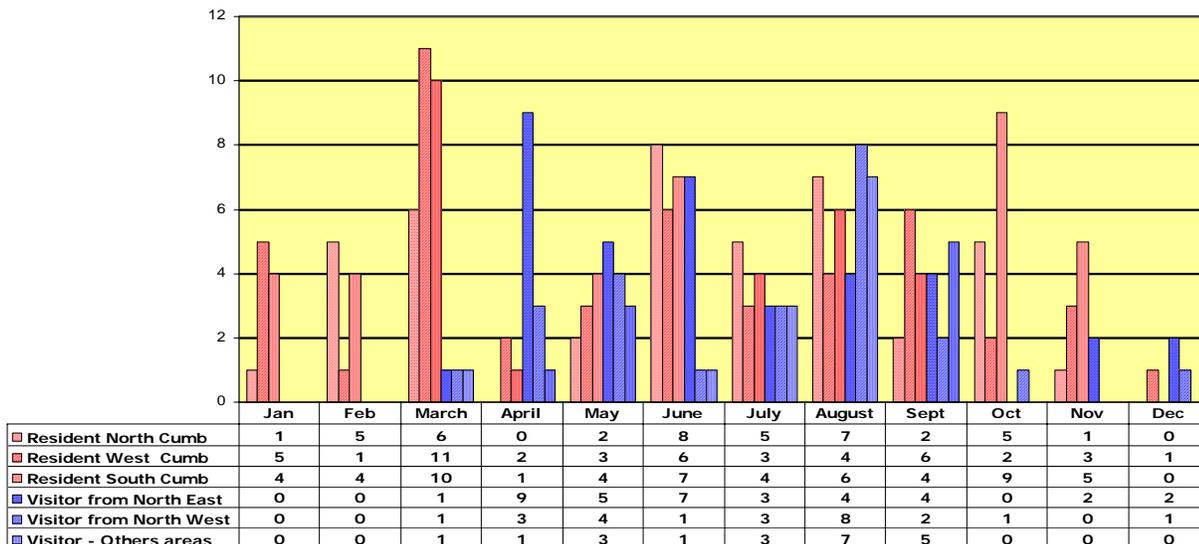


Figure 5 Casualty home location by region

Analysis of 2003 casualty data we were able to provide postal code information upon which to base an effective targeted leaflet campaign.

Responses

Analysis of the information provided the following responses.

Early partnership working between HQ Mobile Support Group (MSG) and Cumbria Safety Camera's ensured maximum efficiency for resource management. This has also had a direct reduction in operational costs.

A practical "Quick Offence Guide" was produced for non-MSG staff to use for identifying the more common offences committed by riders and associated Construction and Use Regulation contraventions. This also served as a work place "development tool" for police officers of varying experience.

MSG, Cumbria Safety Camera's and local policing teams supported this style of pro-active resource management on critical days and times in line with identified trends from data acquisition.

Pre-seasonal rider literature was devised and circulated during April and May to targeted groups with informative material titled 'Don't Crunch After Lunch' via local police stations, regional motorcycle magazines, regional TV and radio. This has, surprisingly, led to phone calls and emails from readers praising the informative nature of the leaflet. Local distribution of literature to independent businesses sources with an interest in motorcycling has sought to enhance our approach to reducing KSI's.

Promotional sponsorship from a local franchised motorcycle dealer has been arranged for May 2004.

Local Police teams have contacted local farmers whose land adjoins the road network in this area to ensure stock fencing is in good repair prior to the commencement of the biking season, this will prevent unnecessary livestock strays which have featured in a number of collisions in previous years. The area TMO has written to these farmers and the National Farmers Union (NFU) outlining their legal obligations in respect of stray livestock and fouling/contamination of the road surface.

Vehicle and Operators Service Agency (VOSA) are supporting our commitment to Casualty Reduction on a number of pre arranged weekend roadside checks.

Evaluation

Considering the 2003 season was extended by a period of 8 weeks owing to exceptional weather and increased numbers of riders on this and associated routes. Policing tactics resulted in an overall decrease in rider casualties as can be seen in Figure 1. This has been deemed to be a success as the numbers of KSI's have been capped over previous years.

Mid-way through the 2003 season, positive feedback via chairmen of two parish councils along the route to say that noise pollution coupled to speed had been reduced. Residents now enjoy an enhanced quality of life over previous years.

Further analysis discovered that a more localised vulnerable user group existed within the west of the county, having featured in a higher number of serious injury collisions. This was addressed by a local rider education programme and ride out tutorial sessions.

In direct contrast to other regions in the 'North West, Wales and Lancashire which have similar geographical routes saw motorcycle collisions increase dramatically over previously reported seasons. This indicated that if we had failed to provide a hi-visibility programme of policing in this area and in particular the A686. KSI's in Cumbria would have increased.

All of our data for the period of 2004 will be used to provide a direct comparison to 2003's data upon which to review our performance, and provide a base line for future targeting and

resource management. Increased partnership working between all key stakeholders is an integral key to early identification of KSI trends and future policing response.

The analysis template will be used to identify other roads and vulnerable road user groups who may be at risk.

Partnership/Delivery

Partnership working between Police, Cumbria Safety Cameras, TMO, Hartside Café, local schools and NFU provided an effective solution to casualty reduction along the route. Future partnership working would introduce the Public as an effective partner by use of targeted publications and media campaigns.

The use of this methodology will be used as a template for future casualty reduction campaigns.

References

Cumbria Motorcycle casualty data 1994 –2003 for the A686.
Cumbria Police (Management Information Services).