

MAKING ROADS MOTORCYCLE FRIENDLY

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INTRODUCTION

Motorcyclists are among the most vulnerable road users in Victoria. The serious injury rate for motorcyclists is almost thirty-seven times that for car occupants (1). In Victoria, motorcyclists comprise 13 per cent of the road toll - with 44 riders fatally injured and 973 riders seriously injured on average per year - yet motorcycle registrations comprise only 3.7 per cent of all registered vehicles.

Although a combination of factors are at play in any crash, the engineering of the road surface and the environment can have a significant impact on both the likelihood of a crash and on the severity of outcomes should a crash occur. This is even more so for motorcyclists. Hazards in the road environment can be reduced through the use of motorcycle friendly engineering products, practices and maintenance procedures.

To increase the likelihood that the road environment is not designed or left in a manner that poses an increased risk to the safety of riders, it is important that those involved in the design, construction and maintenance of roads are aware of and consider the specific needs of motorcycle riders.

To address some of these issues, VicRoads has developed a seminar and associated materials called *Making Roads Motorcycle Friendly* (MRMF). The seminars are targeted at local government and VicRoads staff, road design and construction contractors, and utility providers. VicRoads has also started to engage with tertiary institutions and professional associations to explore ways to increase the motorcycle awareness of engineering students and engineering professionals.

MRMF has been funded from the Motorcycle Safety Levy and endorsed by the Victorian Motorcycle Advisory Council. It is one of the actions in the Victorian Government's new strategic plan for Victoria's motorcycle and scooter riders, *Victoria's Road Safety and Transport Strategic Action Plan for Powered Two Wheelers 2009-2013*. (2)

METHOD

MRMF is based on research. Workshops were held with experienced riders to identify motorcycle safety issues that are impacted by

road maintenance practices. Relevant maintenance practices and standards were then reviewed and the appropriateness of these standards for motorcyclists was investigated. The investigation found evidence that the road condition standards specified in contracts and the standards specified in the Road Management Plan are substantially achieved in practice. However, it is frequently the attention to detail within such standards which is important for the safety of motorcyclists, for example, cleaning of road surfaces where a small amount of residual oil or gravel remains. One of the recommendations from this investigation was to implement a statewide program of education and training for all personnel involved in road design, construction, maintenance and reinstatement works so that assessment of hazards and the safety of completed works can be assessed from a motorcyclist's perspective.

This work informed the development of MRMF. The seminar consists of a two hour multimedia presentation and resources developed to complement the seminars. Seminar participants are encouraged to take the resources back to their workplaces to train their staff.

The seminars were delivered by VicRoads staff through its seven regional offices. Relevant staff members were provided with training in delivering the seminars.

An evaluation of MRMF has been conducted. The evaluation included an analysis of

- the post session evaluation forms (conducted immediately after each session).
- the results of an e-survey which was completed by 56 respondents 5 to 15 months after the seminar.
- telephone interviews with five participants conducted 5 to 15 months after the seminar.

RESULTS AND DISCUSSION

Twelve seminars have been delivered by VicRoads to over 200 people. (Additional seminars have been delivered to tertiary engineering students and local councils but they have not been included in the evaluation).

The majority of participants were VicRoads staff members (52.2%), followed by road design and construction contractors (23.4%) and local government staff (16.8%).

On average, participants indicated a high level of awareness of why motorcyclists are at risk of a crash, and of the impact road design and surfaces can have on this risk (mean (m)=4.22 and m=4.55 respectively, where 1=not at all [aware] and 5=very much [aware]).

Results of the evaluation suggested moderate use and sharing of session information in the workplace. Participants most commonly noted (42% of comments) that they had implemented session information by giving greater consideration toward motorcyclists when conducting work tasks, for example “attempting to select more appropriate surfacings” and “looking more closely at maintenance on motorcycle routes.”

Participants were asked how much more frequently they addressed specific issues since the seminar, with responses provided on a 5-point scale (where 1=not at all and 5=very often).

In road design and construction, participants typically noted a greater frequency of warning sign installation (m=3.38) and sealing of loose surfaces (m=3.32).

In road maintenance and reinstatement, participants typically noted greater frequency of removing debris, gravel and loose stones (m=3.30) and cleaning up liquid spills (m=3.30).

In conducting road works, greater frequency of addressing roadside hazards was typically noted (m=3.56).

A number of seminar improvements were suggested. These include:

- Providing post-seminar (follow-up) information, actions and requirements such as tougher maintenance standards and tighter controls on work done.

- Dissemination of information to a wider audience, such as maintenance teams.
- Providing the information in the form of a short checklist, and providing information online.

CONCLUSIONS

MRMF has been successful in educating those involved in road design, construction, maintenance and reinstatement works about the vulnerability of motorcyclists in the road environment. This increased awareness has resulted in work practices among participants which more frequently address the road safety needs of motorcyclists.

MRMF is one of the actions in *Victoria's Road Safety and Transport Strategic Action Plan for Powered Two Wheelers 2009-2013*. This Plan takes a Safe System approach to road safety, recognising the benefits to be gained from an overarching strategy that delivers safer travel through safer vehicles, safer roads and safer road users. By educating those who design and maintain roads and roadsides to reduce risk for motorcyclists, MRMF moves us towards a safer system for motorcyclists.

REFERENCES

1. Henley G & Harrison JE. *Serious Injury due to land transport accidents, Australia 2006-07*, Australian Institute of Health and Welfare: 23, 2009.