

health or nursing staff as a barrier to assistance in these matters (9). This may create an environment of avoidance with respect to medical professionals approaching motorcycle accident victims to assist them with their administrative needs.

It seems, that characteristics of the public hospital response to motorcycle accident victims, may leave many unassisted as they attempt to return to work, restore finances and their transportation. In the MAARRS study while motorcyclists with fractures did better than expected there were still 40% who had not returned to work by 5 months post accident. There is little evidence to identify who are likely to be successful and who may need further assistance. It may be beneficial to develop screening tools which may assist in the prediction of those likely to have difficulties returning to work as well as those likely to suffer persistent health related problems, so that more proactive programs like the MARI project can be offered to a targeted population of motor cycle accident victims..

Conclusion

Motorcycle accidents in the Central Business District present to St Vincent's Hospital, Sydney at a rate of 1-2 per week and result in mostly minor injuries with about 15% of cases serious enough to be admitted to hospital. There are significant shortcomings in the hospital and rehabilitation management of injured motorcyclists with less than half seeing social workers and an ambiguity about which health professionals should offer to assist patients with administrative issues to do with insurance. Improvements in the hospital and rehabilitation management of

injured motorcyclists in the CBD lie in the introduction of early proactive rehabilitation and the development of screening tools to predict late onset social and health related problems.

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The Motorcycle Safety Research Program at the George Institute

By A/Prof Rebecca Ivers and Liz de Rome

Research on the prevention of road traffic injuries is a primary focus of the Injury Division at the George Institute for International Health. In keeping with a public health approach to injury prevention, our work encompasses research on a range of topics from surveillance, observational and intervention studies through to program evaluation and policy. The Division has a special interest in motorcycle safety as an emerging cause of increased injury in high income countries and a major cause of injuries in low and middle-income countries.

Current work by researchers from the George Institute in motorcycle safety includes:

The Novice Rider Study was a cross sectional survey of over 1000 riders, recruited when they attended the compulsory NSW pre-provisional rider training course in 2008. The aim was to identify factors associated with the use and non-use of protective clothing by novice motorcycle riders and how and why motorcyclists make decisions about usage of protective clothing. The survey also asked about the actual riding exposure of learner

riders to validate their crash risk rate. The long-term objective was to develop an educational intervention program to increase the use of protective clothing. The analysis of results are currently under way. A paper on the extent and range of their riding practice while on the learner licence has recently been accepted for presentation at the TRB Annual Meeting in Washington, 2010. Funding: NRMA Motoring and Services, NSW.

The GEAR Study is a one year prospective cohort study of 212 motorcyclists who crashed on public roads in the ACT. The aim is to identify the associations between usage/ non-usage of motorcycle protective clothing and injury and subsequent disability. This will be the first study worldwide to distinguish between different qualities of protective clothing and to examine the role of impact protectors in preventing injury. In order to ensure a representative sample of all riders who crash, injured riders were recruited from hospitals and uninjured riders are sourced through motorcycle crash repair services. The riders were also followed-up at six weeks and six months to monitor their recovery progress and quality of life following the crash.

The study will be completed early in 2010. Funding: Swann Insurance (Australia).

Motorcycle Helmet Use and Risk Factors for Helmet Non-use Among Motorcyclists in China. A roadside observational study of 4,852 motorcyclists was conducted, 98% of whom agreed to be interviewed at 18 randomly selected sites in Guigang China, in 2002. The aim of the study was to determine the prevalence, quality and correct usage of motorcycle helmet, and secondly, to identify factors associated with these outcomes in China. Just over half (56%) of the motorcyclists wore helmets and two thirds of these helmets were substandard. The findings of the study will be used to develop intervention strategies to promote proper helmet use and reduce motorcycle injuries.

Motorcycle Helmet Use in Vietnam: Prevalence, Barriers to Use and Policy Implications. The aim of this study was to: estimate the prevalence of helmet use in motorcycle riders in the Hai Duong province of Vietnam; examine current policies aimed at reducing motorcycle injuries and promoting motorcycle helmet use in Vietnam; identify barriers to helmet use; and study the prevalence of risky behaviours among motorcycle drivers. A cross-sectional on-site observational survey design has been implemented in order to estimate the prevalence of helmet use based on a random sample of the road hierarchy. The estimates have been obtained adjusting for the time of day, day of week and the season (summer, winter).

Researchers from the George Institute have also conducted a number of Cochrane systematic reviews relating to motorcycle safety. The purpose is to review and synthesise evidence for interventions designed to reduce motorcycle injury and summarise the estimated reductions in risk of death and injury achieved by these interventions. Reviews conducted to date

include: **helmets for preventing injury in motorcycle riders (published), motorcycle rider training for preventing road traffic crashes (under review), and motorcycle helmet legislation for preventing injuries in motorcyclists (under revision).**

The George Institute has also been recently contracted by VicRoads to undertake the evaluation of a large-scale trial of an on-road assisted ride program for newly licensed motorcycle riders.

Recent publications:

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4. Li G, Li L, Cai Q, Ivers R. Knowledge, attitude and practice of helmet wearing of motorcycle drivers in Shantou and Chaozhou. *Chinese Journal of Disease Control and Prevention*, 2007, 11 (4):372-375.
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A Survey of Motorcycle Safety Programs Across Australasia

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Abstract

The continued growth in popularity of motorcycling has been accompanied by an increase in the number of motorcyclists killed and injured. While the effectiveness of motorcycle licensing and training has been examined, little is known about the many smaller motorcycle safety programs. This paper describes current motorcycle safety programs in Australia and New Zealand. Programs were defined by the six factors identified as major contributors to the over-representation of motorcycles in serious crashes (inexperience or lack of recent experience, driver failure to see motorcyclists, vulnerability to injury, road surface and environmental hazards, risk taking and instability and braking difficulties) and by their organisation, type of delivery and likely effectiveness. Very few small-scale

programs had been evaluated. Many statewide programs had only limited or no process evaluation and very few had an outcome evaluation. Recommendations are made for current and future programs for delivery by road safety stakeholders, clubs and other local organisations.

Introduction

Australia and New Zealand, in common with other developing countries, continue to experience a boom in the sales and use of motorcycles. In both countries there was about a 50% increase in the number of registered motorcycles between 2003 and 2008 [1, 2]. The growth in popularity of motorcycling has been accompanied by increases in the number of motorcycle riders and their passengers killed per year, from 188 in 2003 to