

Bicycle Helmets

INTRODUCTION

ABOUT THE MONITOR...

'Monitoring' is the key to this new publication. The *Monitor* will keep its eyes wide open and an ear to the ground. It will keep a finger on the pulse of injury activity, and its team of intrepid reporters will be keeping you informed about who is doing what, where and when, and who is not doing anything.

In order to get the show on the road, this first issue has taken a thematic approach, focussing on bicycle helmet legislation. However, you will find that, over time, the *Monitor* will evolve to have a more eclectic content.

While the *Monitor* will observe high standards of research and presentation, it will adopt a concise and incisive reporting style. Above all, the *Monitor* wants to get its information to you as effectively and painlessly as possible.

Of course, feedback from you will always be welcome. Let us know how you feel about the *Monitor*; give us your ideas for its further development.

Australia has broken new ground with the adoption of a national policy of compulsory bicycle helmet wearing legislation. No other country in the world has mandated for cyclist head protection, and the rest of the world now watches with interest the outcomes of this move. The *Monitor* is devoting its inaugural issue to an exploration of some of the concerns and questions which surround the introduction of bicycle helmet legislation: This issue of the *Monitor* provides a convenient tabular summary of State legislation, information on helmet design, points out some anomalies and looks at the very important area of evaluation.

EDITORIAL

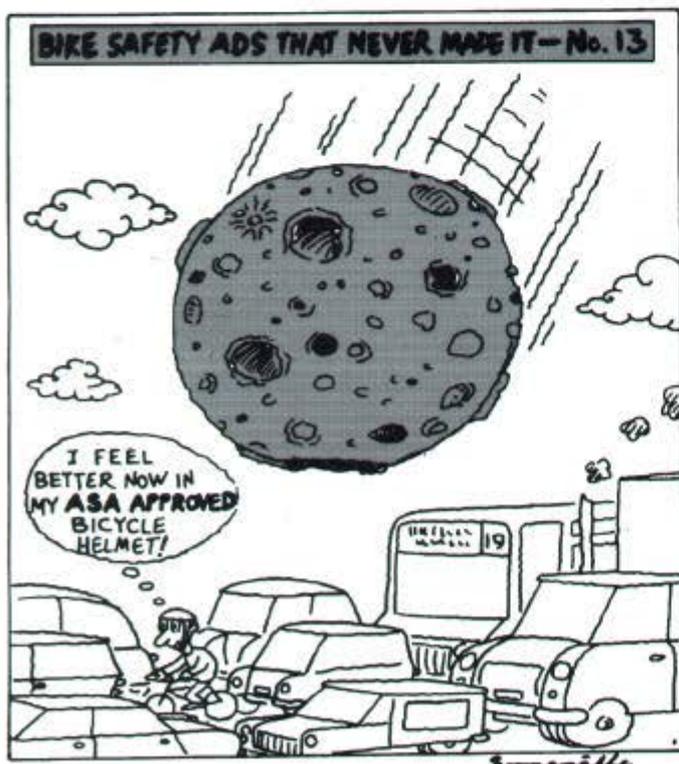
There are lessons to be learnt from the Australian experience of introducing compulsory bicycle helmet wearing.

It is clear that head injury is an important aspect of injury to cyclists and that the introduction of helmet legislation has been one appropriate response to this problem. Based on the evaluations conducted to date, the picture looks encouraging. Overall, helmet wearing rates have increased markedly and there is emerging evidence of a reduction in injuries and fatalities. The nationwide introduction of mandatory helmet wearing is a world first, and the injury control community watches with great interest the outcomes of this step.

Rigorous evaluation should be a vital ingredient in such a process. Ideally, relevant surveys and data collection should have been undertaken for some time prior to mandation. Although some pre-legislative information is available, it is quite limited, and this hampers the undertaking of meaningful pre/post legislative comparisons. The process is confounded by many factors, including the difficulties of interpretation posed by the possible effects of changed exposure (eg cycle usage rates).

Whilst an injury countermeasure may appear, from feasibility studies or research elsewhere, to be capable of delivering safety benefits, there is a need to establish, as clearly as possible, exactly how much injury reduction is realised when the measure is implemented in Australia. Unless efforts are routinely directed to measuring the success of programs, we can't be assured that the scarce injury prevention dollar is being spent wisely.

A co-ordinated program of evaluation should have been an intrinsic part of the Federal requirement for States to enact legislation.



IN THE BEGINNING, THERE WAS A BIG PROBLEM... OR WAS THERE?

Efforts to promote bicycle helmet wearing rest on the premise that head injury accounts for a significant proportion of the injuries sustained in bicycle crashes, and that helmets provide a solution. Although it seems that the validity of these assumptions has long ago been absorbed into the public consciousness, it won't hurt to begin our discussions here by reviewing their soundness.

Many studies have demonstrated the magnitude of the head injury problem in bicycle crashes. The proportion of head injuries as a subset of all injuries sustained in bicycle crashes is significant. For example, an analysis of 1988/89 New South Wales hospital separations shows that injuries to the head accounted for 31.9% of the injuries which required hospitalisation. Importantly, too, injuries to the head are more often likely to be serious or to result in fatalities.^{1,2,3}

So there is a problem! And the solution?

The two main options are, on the one hand, to attempt to reduce the frequency of bicycle crashes by measures such as the provision of more extensive bicycle paths or education programs, and on the

other, to protect the cyclist in the event of a collision. Here we will focus on the latter, for it is this path which was chosen in addressing the bicycle head injury problem.

For several years prior to the introduction of compulsory bicycle helmet wearing legislation, there was substantial promotion of *voluntary* helmet wearing in many parts of Australia. In Victoria, for example, as early as 1982, small scale, targeted promotional campaigns were being mounted. These initial efforts expanded to include market research and mass media campaigns. The promotion of voluntary helmet wearing seems to have been successful. A steady increase in wearing rates was seen during the period of the programs, reaching an average wearing rate of 31%.⁴ Indeed, there was some debate about the necessity for introducing legislative compulsion given the voluntary usage rates. Now, in 1992, such legislation is in place, and it is this countermeasure that will provide the focus for our discussions.

Well, then ... are bicycle helmets an effective counter-measure?

An American case-control study published in 1989 concluded "... that bicycle safety helmets are

highly effective in preventing head injury."⁵ "...riders who do not wear helmets appear to be at a 6.6-fold greater risk of head injury and an 8.3-fold greater risk of brain injury than riders who do."⁶ An Australian study using different methods drew similar conclusions about the potential of bicycle helmets to reduce the incidence and severity of head injury.⁷ Other authors have pointed to the plausibility of helmets as a protective measure^{8,9} and have estimated how many head injuries can be prevented by helmet use.¹⁰ Given the plausibility of helmets as a protective measure, it has been suggested that epidemiologically strong studies (eg randomised trials) would not be possible, for ethical reasons.¹¹

Naturally, if heads are the most vulnerable body parts in bicycle crashes, then it is heads which need to be protected. While encasing the head may be logical, it does not follow that *any* type of casing will offer the required protection. On the contrary, there can be considerable variation in the level of protection afforded by bicycle helmets. Some of the issues surrounding this subject are discussed in the section *Helmet Development*.

WORLD HEALTH ORGANISATION'S HELMET INITIATIVE

At a meeting of WHO Injury Control Collaborating Centres in 1990, a helmet initiative was proposed. The initiative would aim to identify strategies which could increase the worldwide use of helmets with a view to reducing the high level of motorcycle and bicycle injuries. Since that time, two meetings have been held, the first in Paris in October 1991 and the second in Glasgow in September of this year.

The meetings have provided an opportunity for participants from Europe, North America, India and Australia to report on the status of helmet use in their various countries and have provided a forum for discussion of the characteristics of successful and unsuccessful helmet promotion.

The most recent meeting saw the formulation of a plan of action: the expansion of the initiative worldwide; the development, testing and implementation of a minimum data set for helmet and head injury data; and the development of a generic helmet campaign program

which will lend itself to easy modification for use in a variety of situations in different nations.

Through the process of undertaking an international inventory it is apparent that Australia is leading the way in the promotion of bicycle helmet wearing. Helmet wearing rates in this country are now at levels which far exceed those achieved anywhere else. Measuring the success of the Australian experience in reducing the incidence and severity of injuries to cyclists has vital implications for other countries who are equally keen to control road trauma. This is yet another reason for monitoring and assessing the progress of this intervention.

In May 1993, many Australians will attend the Second International Injury Control Conference in Atlanta, USA. A significant part of the program for that event will be devoted to a discussion of bicycle helmets. Undoubtedly, at that time, the eyes of the world will be upon us, to scrutinise the gains (or losses).

Recognition that head injuries are the predominant cause of death in fatal bicycle crashes prompted the Federal Government to include mandatory helmet wearing in its ten point road safety package.¹² As a result, every Australian State now has bicycle helmet legislation in place. Victoria was the first to enact legislation in July 1990, the ACT the last, in July 1992.

In order to ascertain if helmet wearing legislation can control cyclists' head injuries, there is a need to monitor its effectiveness.

Monitoring falls into these categories: helmet wearing rates, bicycle usage rates, levels of enforcement, attitudes, and the effectiveness of compulsory helmet wearing in reducing the incidence and severity of head injury.

All States are undertaking some level of monitoring, although there is considerable variation, both in interpretation and in the level of enforcement.

Helmet Wearing Rates

To varying degrees, States are monitoring helmet wearing rates, with the exception of Tasmania, which has restricted its efforts to surveys of helmet ownership amongst school children. Overwhelmingly, surveys have pointed to a substantial increase in helmet wearing. Notable increases have been charted in the Northern Territory, where wearing rates amongst commuters increased from 19% to 86% after legislation. Wearing rates amongst secondary school students increased from 26% to 71% and, amongst primary school children, they went from 55% to 82%. In Queensland, 4 months after legislation, a wearing rate of 82% was recorded for primary school children, although the rate for secondary school children was still low (33%). Will these high rates

HOW EFFECTIVE IS BICYCLE HELMET LEGISLATION?

persist? Continuing surveys are essential in providing the answer.

Public Attitudes

Attitudinal surveys have been undertaken in NSW, Queensland and Western Australia. In New South Wales, such surveys were undertaken in May 1989, January 1991 and, after the introduction of the first stage of legislation, in May 1991. Overall there has been a high level of support both pre- and post-legislation. In 1989, 71% of respondents supported wearing helmets while on back streets, and 86% on main streets. In January 1991, coinciding with the introduction of mandation, a total of 85% of respondents indicated their approval for the new law. In May 1991, levels of approval remained high with 89% of respondents overall indicating their support. A similar level of support was found in a Western Australian survey carried out one year prior to the legislation being enacted; 78% approved the introduction of mandation.

Whilst public attitudes to mandation of helmet wearing have generally been favourable, some cyclist lobby groups, particularly

competitive cycling groups, have not supported its introduction. Some of the arguments advanced in opposition to compulsory helmet wearing legislation include the suggestion that helmets can cause injury (eg whiplash and neck injury), that helmets have the potential to cause heat exhaustion, and that they promote sunburn and skin cancer through providing no sun protection. It is also argued that mandation reduces the use of bicycles with consequent implications for health, fitness and the reduction of traffic congestion and pollution, and that mandation is an attack on civil liberties.¹³ Many opponents suggest that federal funding should be directed towards the improvement and development of facilities for cyclists (eg bicycle paths). Opposition of the kind mentioned above is reflected in the pages of specialist magazines such as *Australian Cyclist* and *Bicycle Forum*.

Bicycle helmet legislation has recently become a contentious issue in Western Australia. Debate surrounding the issue has featured strongly in newspapers and on radio. Whilst various forms of action have been planned (eg a petition organised by a member of the State Legislative Assembly and a 'ride on the Parliament'), all recent opinion polls indicate majority public support for the legislation. The State's Minister for Police has also indicated his intention of standing firm on this issue.¹⁴

The significant and sustained opposition to helmet legislation bears out the observation that "... even where injury control involves relatively uncomplicated 'engineering solutions', full and rapid community acceptance does not necessarily follow. Systematic analysis of the likely reception of a proposed solution may identify

FIVE COMMON HELMET HAZARDS



critical information needs, key decision-makers, and potential opponents. The program may then be modified to increase its acceptability, or the strength of the case for the desired change.¹⁵

Enforcement

In South Australia and Victoria, formal monitoring of traffic infringement notices is taking place. In both cases, indications are that the legislation is being enforced and complied with. In South Australia, this monitoring process has highlighted the fact that the number of Traffic Infringement Notices (TINs) issued is substantially higher than expected: from 1/10/91 to 30/6/92, 5129 TINs were issued to cyclists for failure to wear a helmet. Police in SA are currently considering the implications of this finding, and developing strategies to increase helmet wearing. Amongst the States, Queensland is unique in that it introduced legislation without any penalty for non-compliance.

Sergeant Ted Wilson (Victoria Police) has pointed out that available evidence shows that cyclists' compliance with applicable road laws is low, as is the effort by police to enforce these laws. Non-compliance includes basic safety-related matters, such as the use of lights at night and signalling of turns. He cites a study of police attitudes to enforcement of these laws which found that they were given low priority because of a "perceived lack of community support and problems of enforcing penalties in children", amongst other reasons. Wilson suggests that "the real reason may be that police are not fully informed on the extent and cost of cyclist trauma", and that better information should be provided.¹⁶

Effect of Legislation

In conducting an evaluation, there are two questions which must be addressed: firstly, the effects of legislation in increasing helmet wearing and; secondly, the public health benefits which accrue through the more widespread wearing of helmets.

Has legislation achieved a substantial increase in helmet wearing? In general, the number of cyclists availing themselves of head protection has been rising steadily over a number of years. However, it

is quite clear that helmet wearing rates have increased *dramatically* since mandation in every State and Territory for which data are available. However, anecdotal evidence suggests that, in Queensland, once it became apparent to cyclists that police had no power to take action, wearing rates fell markedly.

An example of the dramatic rise in helmet wearing following mandation is to be observed in Victoria, the first State to legislate. In Victoria, wearing rate surveys have been conducted over a relatively long period. These surveys have shown a steady increase in helmet wearing amongst cyclists. It is estimated that, overall, helmet wearing rose from 5% in 1982/83 to 31% in 1989/90. In 1990/91, following mandation, the rate rose to 75%.¹⁷ It is a moot point, however, as to whether this legislation would have been nearly as successful in achieving such high wearing rates if a significant level of helmet use had not preceded its introduction.

As to the effect of the legislation in reducing cyclists' head injury, some evaluation has already taken place. In Victoria, the Accident Research Centre at Monash University has shown a reduction in head injury resulting from bicycle crashes since introduction of the legislation.¹⁸ This study used two data sources: claims for injury compensation made to the Transport Accident Commission (the sole Victorian insurer) for cyclists killed or hospitalised following collision with a motor vehicle, and Health Department data on all cyclists admitted to hospital, including admissions resulting from collisions not involving a motor vehicle. The Study found that, based on hospital admissions data, cyclist head injuries had declined by 37% post-mandation, and the TAC data showed a reduction of 51% in the number of cyclists killed or hospitalised as a result of head injury.

This reduction appears to have been achieved both through a reduction in the risk of head injury to cyclists involved in crashes, and also through a reduction in the number of cyclists involved in crashes, pointing to a fall in bicycle usage during that period.

A fall in bicycle usage was also found in a survey conducted by the

New South Wales Roads and Traffic Authority,¹⁹ and a similar fall has been reported by the Road Safety Council of the Northern Territory. This factor is discussed in the Section entitled *Bicycle Usage Rates*.

Evaluation: Research in Progress

Preliminary findings of an analysis of the South Australian Health Commission's inpatient data has shown a substantial reduction in the incidence of head injury as a result of bicycle crashes. Compared to the annual rates of bicycle-related head injury over the four years prior to the legislation, the rate after introduction of the legislation is significantly reduced. The reductions have affected both sexes, in all age groups, in country and metropolitan areas. Overall, the number of bed-days for hospitalised cyclists has been reduced by 45%. The investigation is continuing, in an effort to quantify the proportion of the observed reduction that can be attributed to the legislation as it has affected helmet usage, and the proportion that can be attributed to changes in bicycle usage.²⁰

An evaluation by a team of researchers in Queensland has used a combination of admissions and surveillance data from the major Brisbane metropolitan hospitals to gather data on bicycle crashes involving children. Data was collected for 12 months immediately subsequent to introduction of the legislation. Although the study is yet to be finalised, preliminary analyses suggest that helmet wearing has a protective effect. Accompanying this study, will be an analysis of seven years of surveillance data collected in Brisbane between mid 1984 and mid 1991. There has been a reduction of *all* road injuries during this period. This study will map the pattern of cyclist's injuries over the seven-year period, quantify the reduction in injuries and analyse the reduction in head injuries in relation to changes in other types of injuries.²¹

HELMET DEVELOPMENT

Background/History

Until helmet legislation found its way onto State agendas, there was a veritable smorgasbord of head protection available for cyclists who chose to protect themselves against head injury. The range included the 'hairnet-style' helmet, hard shell helmets with soft liners, stiff liners or no liner at all. The absence of an Australian Standard, and of regulations governing the sale of cycle helmets, was clearly unsatisfactory.

Correct helmet fitting wasn't taken very seriously, and the range of helmet sizes was fairly limited. Until relatively recently, the options for people with large head sizes and for very young children, were few.

How Protective are Helmets?

The notion that any helmet will afford protection against head impact is quite wrong. Standardised laboratory testing and epidemiological studies have demonstrated significant differences in the

level of protection offered by various types of helmet.

A South Australian Study published in 1986 found significant differences in the level of protection afforded by different styles of helmet. Analysis of survey data obtained from 866 members and past members of South Australian cycling clubs led the authors to conclude that "... hard shell helmets incorporating a complete or almost complete inner liner with good shock-absorption properties (eg expanded polystyrene or rigid foam) afford much better head protection in real crashes than do hairnet helmets and hard-shells having inadequate or no liners".²²

The first Australian Standard for protective helmets was published in 1977, but certification of the first helmet to meet that Standard did not follow until 1981. The early helmets which conformed to the Standard were often criticised by cyclists as being too hot, and too heavy to be comfortable. In 1990, the Australian Standard was relaxed significantly by deleting the penetration test which allowed for

lighter, soft-shell helmets with larger holes to increase air circulation.²³ The current Standard specifies performance requirements for energy impact attenuation, localised loading, retention and ventilation, and it is now the most common certification for legally acceptable helmets.^{24,25}

Although comfort is undoubtedly an important criterion for helmet design, it is the protective capability of a helmet which remains the most vital concern.

The level of protection afforded by soft shell helmets has been questioned,²⁶ although a recent test report prepared by the Australian Consumers Association concluded that this type of helmet was acceptable.²⁷ The Monash University Accident Research Centre is currently undertaking a study of the performance of helmets which have been involved in real crashes. It is hoped that this research will establish whether soft shell helmets are as effective as hard-shell ones in reducing the severity of head injury. The *Monitor* will report on the findings of this research when they become available.

Reservations about helmet retention systems have also been expressed.^{28,29} The Australian Consumers Association has suggested that further research is warranted to ensure that the Australian Standard tests helmets in a meaningful way. The tests used by the Standard to assess whether a helmet will stay on the head in an impact are conducted using a smooth dummy head form; ACA's attempt to apply these tests to human subjects resulted, in most instances, in their heads being exposed. They ask "Does human hair make it more likely a helmet will slip off? Is a smooth head form a fair approximation of real life?". Further research into this area seems warranted. ACA also found that the current design of helmets can lead to them moving from side to side on a cyclist's head. They recommend that manufacturers should anchor the straps to prevent this kind of movement.

There are other areas of concern which require further research. For example, the incidence of facial



injuries is extremely common and they are often serious. The capacity of currently available helmets to protect riders against facial injury seems to be limited.^{30,31}

Little Heads – Little Helmets?

The Standards Association is looking at the possibility of producing a Standard for infant helmets. This would cover not only cycle helmets, but helmets for children with disabilities, etc. Discussions about the proposed Standard are at a very early stage.

Lightweight, compressed foam helmets are currently available for infants. Although such helmets do offer some protection, it has been suggested that they may not be as effective as hard shell helmets. There are also potential hazards involved with helmet wearing by children under the age of one. Professor Donald Simpson, a neurosurgeon working with the NH&MRC Road Accident Research Unit in Adelaide, believes that there are problems associated with helmet wearing by infants in this age group

through the mass of the helmet being incompatible with the poorly developed neck control of infants. Professor Simpson therefore suggests that it is inappropriate for children in this age group to be carried on a bicycle.

The broader question of carrying passengers on bicycles probably deserves some attention, and it is an issue which may be dealt with in a future *Monitor*.

Correct Helmet Fitting

Correct fitting of a helmet is crucial to its capacity to prevent injury. Since legislation, the range and number of retail outlets has mushroomed. It is now possible to purchase helmets in discount department stores and even supermarkets. Whilst it is obviously of benefit for consumers to purchase head protection conveniently and at competitive prices, such retail outlets seldom offer support in ensuring the correct fitment of a helmet. This is definitely a cause for concern. A few organisations, such as the Child Accident Prevention Foundation, have produced posters and

brochures which provide detailed advice regarding correct fitting. These materials have targeted schools and parents, and this is to be commended. The helmet manufacturing industry, too, has made some effort to provide information on helmet fitting at point of sale. However, there is a need for a more co-ordinated attempt to ensure a greater public awareness of this issue, and to ensure that retailers provide appropriate advice to their customers.

Another issue surrounding the correct fitting of helmets has been raised by the ACA. It is not unusual for helmets to have a substantial amount of soft padding between the helmet shell and the head. ACA suggests that government intervention is called for to ensure that manufacturers are not allowed to sell helmets "in a range of sizes artificially created by the use of ever-thicker soft padding. Standards Australia should give consideration to setting a maximum thickness for such padding or otherwise more closely regulating helmet sizes".³²

BICYCLE USAGE RATES

There is some evidence that bicycle usage rates fell significantly in Victoria in the period following mandation. The Monash University Accident Research Centre Study of head injuries since bicycle helmet legislation attributes part of the decline in injury sustained in bicycle crashes to this factor. A similar fall in usage rates was also found in a survey conducted by the NSW Roads and Traffic Authority, and has been reported by the Road Safety Council of NT. However, in South Australia, a metropolitan survey three months after legislation saw a small increase in cycle usage rates.

It has been assumed in much discussion that the decline in bicycle usage rates has been as a direct result of the introduction of helmet legislation. It is possible that any decline in cycling due to helmet mandation may be a transient feature of the immediate post-legislative period, although this remains to be seen.

It is also plausible that factors other than helmet

legislation have affected bicycle usage during the past couple of years. For example, the period during which helmet legislation has been introduced coincided with a period of severe economic recession. This is known to have had a considerable effect on the usage of motorised road transport.³³ We are aware of no study of its effect on bicycle usage. As another example, in Victoria, the reduction in cycle use also corresponds in time with a legislative change reducing the minimum age at which learner driver permits can be obtained, from 17 to 16 years. Publicity associated with mandation of helmet wearing has highlighted the hazards of cycling. This might, in turn, have affected the preparedness of some people to cycle, or of adults to allow children to do so.

In summary, bicycle usage has probably declined (though not necessarily everywhere). While helmet legislation may be one factor, it need not be the only one. Evidence that would clarify the issue is lacking.

QUEENSLAND ALTERS COURSE

Analysis of the Federal Office of Road Safety's Road Fatality Statistics has shown a 50% reduction in cyclist fatalities, in both New South Wales and Victoria, from 1990 to 1991. There were 20 bicycle fatalities in New South Wales in 1990 and 10 in 1991. In Victoria, there were 24 bicycle fatalities in 1990 and 12 in 1991. Interestingly, Queensland's bicycle related fatality record was little changed over the same period. In 1990 there were 17 bicycle related fatalities in Queensland compared to 16 in 1991. Queensland now has a higher number of bicycle fatalities than either New South Wales or Victoria, despite having a smaller population.³⁴ While other factors may contribute to this observation, there has been concern that it may reflect the lack of any penalty for non-compliance with helmet legislation in Queensland, and associated relatively low wearing rates.

The Queensland Parliament has now moved to amend its legislation to allow for infringement notices to be issued and a \$30 fine to be levied.

People willing to field enquiries

Enquiries about all aspects of helmet legislation, and cyclist safety in general, can be directed to the following people:

Ms Fairlie Nassau, VICRoads, Ph: (03) 345 4656

Ms Andrea Anderson, VICRoads, Ph: (03) 345 4656

WE'VE TRIED TO GET IT RIGHT ...

We have endeavoured to ensure that the material presented in this issue is accurate. Please let us know of any errors that have crept in.

WE'LL BE THERE IN A BIG WAY!

We've just received news that a large contingent of Australians have been invited to wing their way to Atlanta in May next year to participate in the 2nd World Conference on Injury Control.

Five Australians have been invited to present plenary sessions, 38 have been offered 41 oral presentations, and two have been asked to convene workshops. Abstracts have been accepted for 40 poster sessions. Well done everyone!

Promoting the 3rd International Conference on Injury Prevention and Control

An extensive promotional package is being put together to showcase the excellent efforts of injury control workers in this country, and to promote the 3rd International Conference on Injury Prevention and Control, which is to be held in Australia in 1996.

NISU plans to mount a poster session to provide an overview of Australian injury control programs not reported on elsewhere in the Conference program. We'll also be developing a display to promote the 3rd Conference.

A promotional package will be distributed to everyone attending the Atlanta conference. This package will contain the first

announcement for the 3rd Conference, a list of major Australian projects and injury control practitioners and some glossies aimed at enticing overseas visitors to visit Australia. Australian achievements will also provide a focus for a promotional video to be shown in the final plenary session and provide the subject for a brief paper to be presented by NISU's Director.

The Federal Minister for Health has been invited, either in person or by satellite, to close the Atlanta Conference. In doing so, the Minister's presence will symbolise Australia's assumption of responsibility for carrying on the series of conferences.

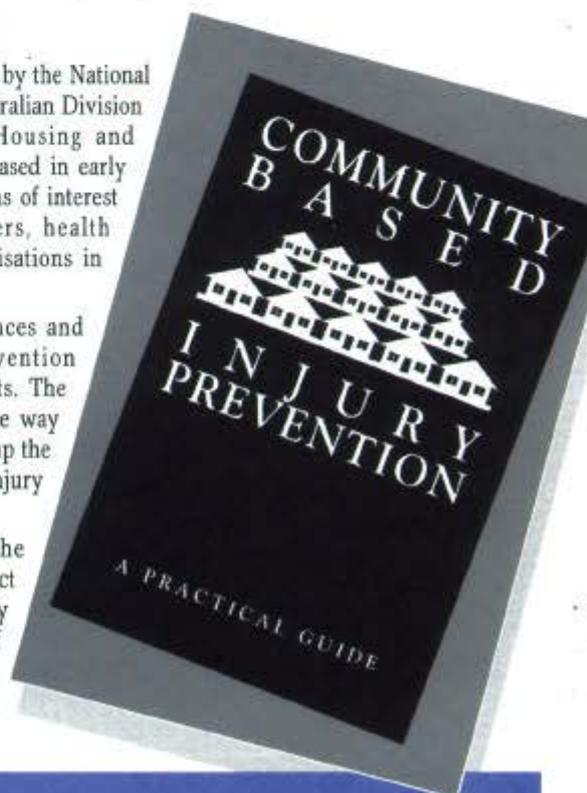
The support of expatriate Australians in Atlanta has been enlisted. Willing conscripts at Emory University in Atlanta have agreed to arrange a social program.

Community-Based Injury Prevention: A Practical Guide

This new publication, jointly sponsored by the National Safety Council of Australia's South Australian Division and the Department of Health, Housing and Community Services, is due to be released in early 1993. It is already attracting expressions of interest from injury prevention practitioners, health agencies and local government organisations in Australia and abroad.

The Guide describes the experiences and achievements of 17 injury prevention practitioners from 12 different projects. The progress of these projects illustrates the way in which local communities are taking up the challenge to be actively involved in injury prevention.

For more information on the availability of this book, please contact Elizabeth King, Manager Community Safety, National Safety Council of Australia, South Australian Division, PO Box 733, Cowandilla SA 5033, Tel: (08) 234 3034.



THERE ARE MANY THINGS WE COULD HAVE TALKED ABOUT ...

For example, issues such as where helmet technology is heading, rider conspicuity, peripheral vision, non-helmet countermeasures (eg more extensive bicycle paths), to name just a few. The dictates of space prevent us from exploring a broader range of issues than we've dealt with here. We will try and keep you informed, however, about significant developments in future issues of the *Monitor*.

ACKNOWLEDGEMENTS

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The Injury Issues Monitor is the journal of the National Injury Surveillance Unit (NISU), Mark Oliphant Building, Laffer Drive, Bedford Park SA 5042,
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Letters to the Editor are welcome and likely to be published.

Editor: Renate Kreisfeld



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HEALTH & WELFARE
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FOOTNOTES:

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