

Occupational safety research in Australia

Occupational injury research sometimes doesn't receive the prominence it deserves in public health injury prevention. Accordingly, we've asked Tim Driscoll, a consultant injury researcher with an extensive background in the area of occupational health and safety research, to provide some material on this important issue. Tim has canvassed key Australian organisations in the occupational injury field about their current activities and provided us with an enlightening overview of these. He has also showcased some particular projects and prepared an annotated list of useful occupational injury websites. Tim acknowledges the contribution of information used in his work.

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Key occupational injury organisations

There are a number of centres in Australia performing research into, or related to, work-related injury. Work is sometimes the explicit focus of activity and sometimes is included as part of broader investigation. The main centres involved in research into work-related injury in Australia are briefly described below. More information can be found by visiting the websites of the centres (the websites are provided on page 11) or by contacting them directly.

Australian Centre for Agricultural Health and Safety (University of Sydney)

The Australian Centre for Agricultural Health and Safety is a research centre of the University of Sydney's School of Public Health. It is based in Moree, in north-western New South Wales. The mission of the Centre is "To assist rural

agriculture". The key attribute of the Centre is its ability to develop and maintain very close working relationships with the



agricultural community in Australia. This allows the staff to gain a thorough understanding of injury issues facing farm workers, residents and visitors, and to develop prevention approaches in close consultation with the people who will need to implement them.

One of the key activities of the Centre is running the National Farm Injury Data Centre. The Data Centre uses a wide variety of injury data sources to support the production of a regular newsletter and a range of *ad hoc* reports and publications on farm-related injury and injury management.

Injury Risk Management and Research Centre (University of New South Wales)

The Injury Risk Management and Research Centre (IRMRC) is an inde-



Australians to attain improved levels of health and well-being by action to reduce the incidence and severity of injury and illness associated with life and work in

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pendent research centre of the University of NSW. The Centre is jointly funded by NSW Health, the Roads and Traffic Authority, the Motor Accidents Authority and the University of New South Wales.



The Centre undertakes research in a wide variety of injury areas, with work-related injury being one of the key areas. Relevant work currently being undertaken or recently completed includes studies of:

- The profile of work-related injury in NSW;
- Fatigue and occupational health and safety in light trucking;
- The effects of precarious work on occupational health and safety, examining temporary and casual work in light trucking, call centres and the hospitality industry;
- Incidents in the mining industry, with a particular focus to date on causes of electrical incidents and of unplanned movements of mobile mechanical equipment in mining;
- Work-related motor vehicle crashes, especially comparing on-duty and commuting crashes, and crashes involving fatigue;
- The effects of night and day driving in long distance road transport;
- Injury and incident databases in the mining sector; and
- Costs associated with work-related injuries.

Monash University Accident Research Centre

The Monash University Accident Research Centre (MUARC) undertakes work in most areas of injury control and prevention, including work-related injury. Several recent or current MUARC projects consider work-related injury topics. One current project aims to describe risk factors for farm injury to males—the Farm Injury Risk among Males (FIRM) study. Another ongoing project involves providing materials to support the systematic assessment of the relative safety of tractor design features. Both these projects are considered in more detail later in this issue of the *Monitor*. Recently completed projects covered:

- evaluation of the retrofitting of safe tractor access platforms;
- prevention of injury from forklift trucks;
- prevention of injury in the construction industry;
- manual handling in the manufacturing industry;
- work-related driving;
- the ergonomic evaluation of MAS ambulances; and
- the redesign of a personnel transporter for coal miners.



Using data obtained from the Victorian Injury Surveillance and Applied Research System (VISAR), MUARC produces a regular publication titled *Hazard*. Each issue of *Hazard* is usually focussed on a

specific injury topic, and several issues have considered work-related injury. These include aspects of work-related injuries (Editions 17 and 18), product-related injuries: tractors, escalators (Edition 24), and unintentional hospital-treated work injury (Edition 58). VISAR information is also used to produce a farm injury surveillance report—*Farm Injury Regular Surveillance Tools*.



National Research Centre for Occupational Health and Safety Regulation

The National Research Centre for Occupational Health and Safety Regulation is based at the Australian National University. It conducts research into occupational health and safety (OHS) regulation, consistent with the National Occupational Health and Safety Strategy in Australia. Much of this work is directly relevant to injury prevention, through work on the most appropriate regulatory types and mix to maximise hazard and risk reduction in the occupational setting. This work has considered safety culture and risk, risk management, systematic management of OHS, and safe design. The Centre is funded by the National Occupational Health and Safety Commission (NOHSC).

Of particular importance in the National Centre's work is its support for a National OHS Regulatory Research Consortium.

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The aim of the Consortium is to foster, develop and support an interdisciplinary collaborative network of Australian researchers interested in OHS regulation, in order to increase the amount of high quality evidence-based and policy-focused research into OHS regulation.

The Centre publishes a quarterly newsletter, *Regulation at Work*, which monitors national and international developments, cases and research relevant to OHS regulation.



Queensland Injury Surveillance Unit

The Queensland Injury Surveillance Unit (QISU) collects, collates and disseminates information on injury in Queensland, using emergency department data as its focus. Data are collected from the emergency departments of a sample of 12 Queensland hospitals in three regions—metropolitan, regional and remote. Among its many activities, QISU provides injury data to support a range of injury surveillance and prevention activities. It produces a bi-monthly publication, the *Injury Bulletin*, which usually focuses on a specific topic. Work-related injury has been the focus of several analyses, including needlestick injuries (*Bulletin 49*), general workplace injuries (*Bulletins 53 and 85*), eye injuries in coal mining (*Bulletin 73*), all-terrain vehicles (*Bulletin 81*), school age children (*Bulletin 84*) and farm-related injuries.

Research Centre for Injury Studies (Flinders University)

The Research Centre for Injury Studies is a Research Centre of Flinders University. The Centre covers all aspects of injury prevention and control, often working in collaboration with other agencies and researchers, and has undertaken several projects focussed on work-related injury. These include development of the third edition of the *Type of Occurrence Classification Systems*, based on ICD-10, which is the national standard for coding information on injuries and diseases recorded in Australian workers' compensation databases; and a study of the role of design issues in serious work-related injury, which is described in more detail later in this issue of the *Monitor*.

The Centre has recently completed a study on alcohol and workplace culture and safety in collaboration with the National Centre for Education and Training in Addiction and Tim Driscoll of Elmatom Consulting.

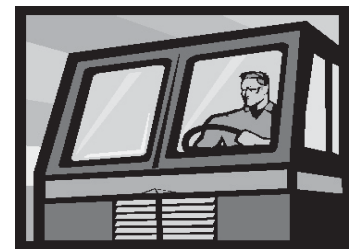
VIOSH Australia (University of Ballarat)

The Victorian Institute of Occupational Health and Safety (VIOSH) aims to stimulate and undertake research and development designed to reduce occu-



pational risk. Therefore, rather than undertake work that attempts to more and more closely define problems, the focus is on solution-orientated research. Consistent with this, considerable time and effort have, in the past, been expended on the establishment and

development of solutions databases and programs that encourage the sharing of solutions. More recent funded research is focusing on increasing the uptake of solutions by industry sectors such as plastering (in the construction sector) and the thoroughbred horse racing industry. Postgraduate students are exploring the barriers to the uptake of solutions and how best to target interventions, with a particular focus on small business. Other postgraduate research is building the evidence base around which interventions work best in large organisations. The



complementary research in small and large businesses is building a strong coherent base of evidence of how to change OHS performance and how to evaluate interventions to demonstrate long-term sustainable performance improvement.

The role of the coroner in work-related injury prevention

Coroners are often called upon to consider work-related safety when they investigate fatal incidents related to work. Since virtually all injury deaths are reported to a coroner, coroners are potentially an important source of information on work-related fatal injury. They can also serve as advocates for prevention and a force for change. Some of the relevant work involving coroners and coroners' data, much of which has been conducted by or facilitated by the Victorian Coronial Services Centre (comprising the Victorian State Coroner's Office and the Victorian Institute of Forensic Medicine (VIFM)), is described here.

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National Coroners' Information System

The National Coroners' Information System (NCIS) is a national database that can be used by researchers to identify patterns and trends concerning many different types of fatalities reported to a



coroner, including work-related deaths. Unlike workers' compensation databases, the NCIS provides information on all fatally injured workers, regardless of employment arrangements, as well as including and explicitly identifying fatally injured bystanders. The NCIS can be used to identify the frequency and circumstances surrounding all work-related deaths, those deaths that involve a particular industry or occupational group, or fatalities related to a particular type of workplace equipment. Examples of how the NCIS has been used for the study of work-related injury include a report on all farm-related fatalities in Victoria that was produced for the Rural and Regional Services and Development Committee in 2004¹, and a project examining the role of design in work-related injury (described later in this issue). Overall, the NCIS provides much more timely, efficient and comprehensive data on work-related fatal injury than has been easily available to date.

The NCIS contains information on every death reported to a coroner around Australia since July 2000 (January 2001 for Queensland). It was developed as a death investigation and research tool by Monash University in 1998 and is now

managed by the VIFM. The system has now been collecting information for almost five years and contains over 90,000 reported coronial cases on the system. The NCIS has moved from an initial developmental stage to one of consolidation and further development. Data access rules have been developed and implemented, quality assurance protocols are in place, and data completeness and timeliness rates continue to improve. The NCIS will soon incorporate ASCO codes provided by the ABS, allowing users to search the NCIS using this Australian Occupational Coding Standard.

Victorian Work-Related Fatalities Prevention Project

The Victorian State Coroner's Office and WorkCover initiated a joint project in 1997 to combine coronial information with WorkCover information on work-related fatalities. Work-related fatalities from 1993/94 to 1996/97 were analysed to identify trends in the factors that contribute to Victorians dying at work, and to identify priority areas to target future deaths and injuries. Three areas were subsequently



developed into intervention programs in conjunction with VIOSH Australia. These three chosen areas were:

- Falls from heights
- Hydraulic deaths
- Tree-related fatalities

More recent data from 1999 and 2000 were analysed to identify traumatic work-related deaths in Victoria, including

'intentional' work-related deaths (for example, homicides and suicides related to work). Other research projects arising from the project have investigated deaths of security guards, issues surrounding asbestos use by DIY workers, waste-industry deaths and, most recently, avia-



tion deaths in Victoria. The current project is investigating agricultural deaths and injuries.

The Work-Related Fatalities Prevention Project also functions to advise coroners on past research for use in coronial cases, as well as acting as an information source for relevant OHS research, and a communication conduit between the Coroner's Office and WorkSafe Victoria. (Contact: maria.batchelor@coronerscourt.vic.gov.au)

Victorian Work-Related Death Investigation and Resource Unit

The Work-Related Death Investigation and Resource Unit (WRDIRU) will commence operation at the Coronial Services Centre under the auspices of the VIFM from 1st July 2005. This project has the direct support of the Victorian Attorney-General, WorkSafe Minister and WorkSafe Victoria, and is regarded as breaking new ground in concept, depth and scope of liaison. The Unit focuses on injury deaths, but it will also attempt to improve understanding of the links between work and fatal long-term occupational disease.

The formal goal of WRDIRU is to assist in providing quality investigation of work-

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related deaths for the Coroner and timely information to help reduce work-related deaths. In the first instance, information is provided to the Coroner to offer the means for high quality investigation for all reported work-related deaths and to support the development of more targeted findings. This includes gaining a more accurate and relevant understanding of how and why such work-related incidents occur, as contributory factors can be difficult to identify.

The Unit is intended to also allow the information to be more effectively used for prevention purposes. The information will be considered by people experienced in work-related disorders and their prevention, with the aim of developing directions for immediate improvement. Relevant research will be undertaken or



facilitated, and international links created to achieve common directions.

A close and permanent liaison will be established with WorkSafe Victoria for the timely and effective delivery of important

information to support relevant improvements. Timely, accurate and practical information and advice will also be provided to industry and the general community.

It is expected that the full brief and directions of the Unit will quickly grow with time. Priorities for initial areas of investigation by the Unit will be identified by the State Coroner with advice from the Victorian WorkCover Authority and other key stakeholders. In terms of injury, they are likely to initially include areas such as:

- Work-related injury deaths on Victorian farms;
- Deaths involving industrial equipment;
- Deaths in the construction and manufacturing industries; and
- Deaths in the small business sector.

Prevention by design

The role of design in contributing to, and preventing, injury is of increasing interest in most fields of injury because of the probable better effectiveness of passive protection measures compared to more active measures that require the cooperation of workers or others to be fully effective. Design issues are of particular interest in occupational health and safety. This section briefly describes some of the recent research projects and other initiatives in Australia that have investigated the role of design in work-related injury, and a recently published PhD thesis from the Netherlands which considers the role of design in influencing risk perception and behaviour.

The role of design in serious work-related injury (NOHSC)

The National Occupational Health and Safety Commission (NOHSC) endorsed a formal national strategy in 2002—the National OHS Strategy, 2002-2012². One of the five national priority areas in the Strategy addressed the role of design in work-related disorders—“eliminate hazards at the design stage” (‘Safe Design’). Following the endorsement of

the Strategy, safe design has become a major focus of activity for NOHSC.

A NOHSC study of fatal plant and machinery incidents that occurred from 1989 to 1992 had shown that poor design made a significant contribution to that group of fatal incidents³, but little was known about the importance of design issues since then. To better understand

the scope of the problem, and identify likely targets for prevention activity, NOHSC commissioned a study of the contribution of design issues to serious work-related injury. The study used the National Coroners’ Information System as the source of information on fatal injuries,

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The role of design in serious work-related injury (NOHSC)

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and the National Data Set for Compensation-based Statistics (NDS)⁴ as the source of information on serious, non-fatal injuries. Only workplace injuries that occurred in some form of fixed workplace were included (meaning motor vehicle, train and aircraft crashes were excluded). Design issues were estimated to have contributed to at least 37% of workplace fatalities and 30% of serious, non-fatal work-related injuries. Missing or faulty roll-over protective structures, guarding, residual current devices, fall protection devices and hydraulics accounted for 60% of the fatal, design-related, incidents. Guarding

was the main design issue in serious, non-fatal injuries.

The key overall findings of the study were that design continues to make an important contribution to serious, work-related injury in Australia; that many of the problems are recurrent and have been well known for many years; and that most problems appear to be amenable to prevention. The study also identified a lack of information on design issues in available data sources, and an international lack of suitable definitions of what characteristics of an incident identify it as being related to design. More detailed

information is available from the two study reports^{5,6}.

Since the completion of the study, NOHSC has been working with industry, unions and government agencies to develop a Safe Design Guideline. In addition, a series of seminars on safe design are being planned for presentation in various forums around the country⁷.

This project was undertaken for NOHSC by Tim Driscoll of Elmatom and James Harrison of RCIS.

The contribution of coroners

Design issues have been considered for specific incident or equipment types as part of a coroner's investigation of individual deaths or groups of deaths, and many have focussed on work-related deaths. Most of these investigations have occurred in Victoria. They have covered such areas as roll-over protection devices on tractors and forklifts, hydraulic lifting devices, maintenance work under vehicles and systems to cover loads on trucks. More detail on the use of Coroners' information in studying design issues in work-related injury is provided elsewhere in this issue of the *Monitor*.

The role of machinery design in farm injury among males

As mentioned earlier, MUARC is currently conducting the FIRM study, a case-control study of farm injury in males. The project is being led by Dr Lesley Day. The aim of the study is to "identify risk factors for serious farm-work-related injury among adult males and to obtain estimates of hazard exposure among male farmers in Victoria". One specific aspect of this project considers the involvement of farm machinery in these injuries. This approach comprises in-depth investigations of the safety features of specific agricultural machines involved in serious injury events, and comparison with similar equipment that has not been involved in such events. Human factor issues are also examined. The analysis will compare the features of machinery involved in injury, with the features of machinery not involved in injury. The aim is to support the development of recommendations that would prevent, or reduce the severity of, serious injury. The project is funded by RIRDC.

Regulatory approach to minimising design-related occupational injury

The National Research Centre for OHS Regulation has considered the role of regulation in maximising safe design in the occupational environment. Projects have considered building and construction, plant and general aspects of safe design. This research has supported the development of NOHSC's *Draft National Construction Standard for Construction Work* (NOHSC 2004) and the building and construction sections of NOHSC's *draft Safe Design Guideline* (NOHSC 2005).

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Prevention by design

Retrofitting of safe tractor access platforms

A significant proportion of tractor-related deaths involve the operator or another person being run over by the tractor, with mounting and dismounting a particular problem. The use of safe access platforms has been identified as a useful intervention to decrease the risk and severity of runover injuries. As a result, the Australian Centre for Agricultural Health and Safety developed a guidance note for the construction of safe access platforms for tractors. These had to be retrofitted to tractors already in use. MUARC recently conducted a project to evaluate the success of the uptake and implementation of this retrofitting by two farm safety action groups in Victoria.

The study concluded that the initial implementation of safe tractor access platform retrofitting had proved to be relatively successful, but that there were several safety issues

that could have been better addressed if closer attention had been paid to the requirements of the guidance note. Also, safety could be improved by incorporating recently available engineering approaches not included in the current guidance note. Tractors retrofitted with the access platform were found to be safer than new tractors that did not have a safety access platform, and “platform retrofitting could be considered to be current best practice in the management of tractor run-over risk”.

The project was funded by the Rural Industry Research and Development Corporation. Further information can be found at www.rirdc.gov.au/reports/HCC/04-180sum.html



Tractor without access platform



Tractor with retrofitted platform

Prevention by design

The influence of product design on risk perception and behaviour

Risk Perception in Product Use is a recently published version of a PhD thesis by Freija van Duijne of the Delft University of Technology in the Netherlands. Her study examined the influences on the risk perception of users of consumer products by studying user-product interaction. Both qualitative and quantitative approaches were used, with considerable field research undertaken. The four main questions considered were:

- To what extent are people ... aware of the risk of being injured?
- If people are aware of running risks, to what extent do they attempt to adjust their behaviour?
- To what extent do featural and functional product characteristics evoke risk awareness, and, consequently influence product use?
- Do designers pay attention to the way users handle consumer products and do they use that information in solving problems and furthering safe usage of consumer products?

One specific part of the study considered whether aspects of the design of a product could influence the perception of risk and/or the manner or circumstance in which the product was used. Duijne found that aspects of product design did indeed influence the user's risk perception, but that this influence was not straightforward. In some instances, obvious safety features, or a general safe appearance of a product, provided the user with a false sense of the

degree to which hazards had been controlled and so, paradoxically, could promote unsafe behaviour. In other circumstances, the design suggested a function for the product that was not intended by the designer, leading to risks not anticipated by the designers. Users were found to rely heavily on experience when assessing risks and deciding how they should use a product, rather than attempting to assess the risks *de novo* prior to use. The author concluded that it was therefore very important for designers to understand how design influences a user's perceived risk and subsequent actions, and to modify products in light of this knowledge. This information needed to be obtained for the specific product, rather than being a general list of recommendations for what to do or not do in terms of design.

Of concern was the finding that many designers seemed to prefer to use their own experience rather than the findings of the field research, and to develop designs in isolation of possible effects on risk perception. The possible effects on risk perception might be considered later, but would result in modifications to pre-existing designs, rather than being taken into consideration when the fundamental design was being developed.

Design issues and mining injuries

The role of design issues in the occurrence of injuries in the mining sector has recently been considered by Dr Ann Williamson at The Injury Risk Management and Research Centre, as part of her work with the New South Wales Department of Primary Industries' Mine Safety Section. Ann produces a regular overall report on mining injury, based on the Department's injury data system. In addition, her work has considered particular types of incidents in more detail. Recent detailed analyses have focused on electrical incidents and 'unplanned movements', using an approach that considers all pre-existing circumstances that contributed to the event, and characteristics of the event that immediately preceded the incident. Events that involved equipment (excluding those that primarily involved vehicles) were found to commonly involve problems with equipment design and maintenance. The most common specific problem related to remote-controlled equipment. The study recommended that most effective prevention strategies for these incidents would include a focus on reviewing the appropriateness of equipment design.

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Prevention by design

Engineering solutions to manual handling and fall hazards in plasterers

The Victorian Institute of Occupational Health and Safety (VIOSH) has been actively involved for many years in the study of design solutions to prevent occupational injury. An example project, conducted by Cowley and Leggett, is presented here.

Finishing of contemporary residential construction projects generally involves fixing (hanging) of sheets of plasterboard to walls and ceilings. The process exposes plasterers to the risk of falls and manual handling injuries, which are among the leading causes of occupational injury experienced by plasterers around the world⁸⁻¹⁰.

In Australia, plasterboard is available in a variety of sizes, which are typically 10mm or 13mm thick. The usual width is 1,200mm. Lengths range from 2,400mm to 6,000mm. The weight of 10mm of 1,200 x 6,000mm plasterboard is approximately 55kg. The HSE¹¹ found that fixing plasterboard to ceilings was reported as the most stressful task for plasterers, exacerbated by the constant extension of the neck and trunk. Mounting scaffolding to undertake the fixing had the greatest fall potential. The

task of raising the plasterboard to the ceiling, in particular, places heavy demands on the workers' postural stability, and that workers may not be able to use their body movement strategy efficiently and accurately in response to any possible momentary loss of balance¹².




Reducing the width of plasterboard has been demonstrated to be of benefit in Europe¹³, and undoubtedly board size and weight reduction are attractive prevention

the recent arrival of alternative lower cost devices in Australia is increasing their use.

A risk assessment revealed a number of problems with the cable winch devices, the most significant being the potential for uncontrolled descent of the mast in the event of cable failure. The operator of the device must stand directly under the board being raised to operate the winch, and consultation with plasterers has

approaches from an OHS point of view. However, they remain problematic from an industry point of view, although discussions are proceeding with the industry regarding eventual reductions in sheet lengths in Australia.

To address some of the problems in the short to medium term, a number of engineering solutions have been developed. One such solution that addresses the lifting of plasterboard to ceilings is a cable winch device. This device has a telescopic mast mounted with a frame that supports the panel while offering some pivoting to deal with raked ceilings as well as fixing to walls. The devices are currently imported to Australia. They are in widespread use and

Plasterboard Panel Lifter	
<p>In Australia 6m lengths of plasterboard weighing approximately 78kg are commonly used in construction. In a typical domestic construction project a number of these sheets are manually lifted above the head and fixed to the ceiling at heights ranging above 2.7m.</p> <p>Typically the fixing of board to the ceiling requires a three-person team lift, although two people sometimes undertake the work.</p> <p>Some workers use a panel lifter to assist. Unfortunately, this device is usually manually powered with a cable winch that fails to danger, i.e. cable breakage results in rapid uncontrolled descent of the mast. Also, the imported device has not been designed for the longer Australian 6m sheets.</p>	<p>ASEMA International, a small group of engineers in Ballarat, designed a new pneumatically powered panel lifter that comfortably handles 6m sheets.</p> <p>The device is fail-safe, is designed for easy loading of sheet and dismantling and transport.</p>
	
	

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Engineering solutions to manual handling and fall hazards in plasterers

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revealed a number of anecdotes about cable failure and consequent 'near misses'. Imported devices do not cater for 6m boards, as Australia and New Zealand are the only countries to use this length. Consequently operators often have to support the board during ascent.

As a result of the problems identified, the development of a new

local device was stimulated. ASEMA International, a small group of engineers in Ballarat, designed a new pneumatically powered panel lifter that comfortably handles 6m sheets. The device is fail-safe, and is designed for easy loading of sheets, dismantling and transport.

The benefits of the device are clear from a manual risk reduction point of

view. When used with devices that allow screw fixing from floor level they dramatically reduce the risk of falls. The development provides a good example of the application of safe-design principles but offers a challenge within the self-regulatory environment where lower cost unsafe devices remain freely available (see figure on page 9).

PhD students involved in occupational injury research

There is probably not a lot of involvement of PhD students in occupational injury research in Australia, although the exact situation is not known. Examples of relevant PhD projects that are being undertaken are those of Ruth Stuckey, Richard Franklin and Fiona Clay.

Ruth Stuckey is working with Professor Tony LaMontagne at Melbourne University and Professor Malcolm Sim at Monash University. Ruth's project is focussed on work-related injury arising from occupational light vehicle (OLV) use. Although some research in this area has been undertaken in Australia and elsewhere, it has focussed on employees driving employer owned vehicles. There is also significant use of these vehicles by self-employed persons, but little available information about injury and injury-related activities for OLV use in all occupational circumstances. Ruth has recently completed a paper on legislative cover and gaps¹. Further work will include a review of

relevant research to date; proposal of a model for future review and intervention, encompassing all related aspects of work, vehicle, road and policy; and identification of potential determinants of crash/injury outcomes.

Richard Franklin's PhD is based on his work with the Australian Centre for Agricultural Health and Safety. The hypothesis for the project is that regular data collections do not provide enough information for optimal prevention in an OHS setting, but do provide direction for where resources should be allocated. The aim is to provide information on how useful each of the data sources is for defining prevention activities. This includes the monitoring of programs and the allocation of resources in NSW to reduce injuries from farm incidents. To test the hypothesis, a range of data sources is being examined. These include the NSW Hospitals In-patient collection; NSW workers' compensation claims; a Tamworth Base Hospital Emergency Department survey of farm injuries; the administrative database for the Roll Over

Protective Structure (ROPS) rebates scheme; and a community survey examining issues of relevance about ROPS on tractors.

Fiona Clay is based at MUARC and supervised by Professor Joan Ozanne-Smith. Her project investigates predictors of return to work and on-going work disability after serious injury. All forms of injury are included, with emphasis on those covered by the Traffic Accident Commission and WorkCover Victoria. All employed persons aged 15 to 64 years and presenting to hospital and with injuries graded as AIS 2 or higher are eligible for inclusion (although there are some specific exclusions). The purpose of the study is to examine potential predictors such as type of employment, patient beliefs about their recovery and pain experience, source of income, and types of employment during recovery, and to assess the extent to which these factors can predict if and when a patient will return to work following injury.

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Safe Tractor Assessment Rating System

The Safe Tractor Assessment Rating System has been developed by MUARC, working with the Kondinin group and in consultation with a wide range of relevant organisations and individuals. The project considers a range of engineering controls that can be inherent in tractor designs or included as modifications at a later time. It is premised on the assumption, supported by work elsewhere, particularly in Scandinavia, that serious operator injury resulting from tractor rollover should be largely eliminated (and certainly minimised) if tractors have appropriate safety design features. The suggested design features are a mixture of primary and secondary measures and cover 17 categories

grouped into six key areas. The rating system focuses on the safety of the operator, but the safety of others is also considered, and it takes into account legislative requirements. The system is designed to guide the purchase of new tractors and to rate tractors currently in use. Since the safety of an individual tractor can change with modifications and over time, each rating is relevant only to the specific tractor at the time it is rated. However, the system has been developed to allow comparisons to be made between tractors.

Further information can be found at www.monash.edu.au/muarc/projects/stars.html



Researcher, Dr Lesley Day, demonstrating her skills in field research.

Occupational injury websites

For those in search of information on work-related injury in Australia, each of the organisations mentioned on the previous pages have useful material on their websites.

- Australian Centre for Agricultural Health and Safety: www.acahs.med.usyd.edu.au
- The Injury Risk Management and Research Centre: www.irmrc.unsw.edu.au
- Monash University Accident Research Centre: www.monash.edu.au/muarc
- National Occupational Health and Safety Commission: www.nohsc.gov.au
- National Research Centre for Occupational Health and Safety Regulation: www.ohs.anu.edu.au
- Queensland Injury Surveillance Unit: www.qisu.org.au
- Research Centre for Injury Studies:

- www.nisu.flinders.edu.au/index.php
- VIOSH Australia: www.ballarat.edu.au/ard/sci-eng/viosh

In addition, there are several Internet-accessible databases. The most comprehensive is the National Occupational Statistics Interactive (NOSI), maintained by NOHSC. This provides a searchable database of all accepted workers'

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Occupational injury websites

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compensation claims from 1994/1995 onwards. The search engine is reasonably easy to use, although it takes a little while to get used to the few quirks in the system. Stratification down to a detailed level is possible in many instances. One trap to watch out for is that the database adds a random factor to the final numbers for confidentiality reasons, even when the number of cases is large. This means that the same search repeated several times is likely to produce several slightly different estimates. NOSI can be accessed at

www.nohsc.gov.au/OHSInformation/NOSI/default.asp

The NOHSC website also contains a large database of practical solutions to OHS problems. Many of these involve consideration of design issues. The database can be accessed at www.nohsc.gov.au/OHSInformation/Databases/OHSSolutions/ohssolutions.htm

Each of the state and territory OHS agencies also provides information on occupational injuries. This is mainly in the form of formal reports and usually focuses

on workers' compensation data, although reports on specific areas are also released on an ad-hoc basis. NSW WorkCover has a pilot system similar to NOSI, which covers the three years 1998-1999 to 2000-2001. This can be accessed at www.workcover.nsw.gov.au/wesi/scripts/broker.exe?_service=wesi&_program=wesimacr.sasmacr.intro.macro These and other relevant OHS sites can be accessed directly, or via links on the NOHSC website (www.nohsc.gov.au/OtherRelatedSites).

Product Safety Study

The Productivity Commission has been asked to report on Australia's general product safety system which is covered by the Trade Practices Act 1974 and State and Territory Fair Trading Acts. The report will be finalised in January 2006. It applies to all consumer goods with the exception of some classes of goods that are subject to additional regulations (including medicines, food, road transport vehicles, electrical products, buildings and agriculture). The Commission's study will take account of these in assessing the case for reform.

In conducting the Study, the Commission will consider a number of options for reform that were outlined in a previous discussion paper produced by the Ministerial Council on Consumer Affairs. The discussion paper, *Review of the Australian Consumer Product Safety System*, can be viewed on the Internet: www.consumer.gov.au/html/Consumer_Product_Safety_Review/ The paper proposed the following options:

- a general legal obligation for businesses to only market safe consumer products;
- a revised definition of unsafe goods;
- revisions to the regulatory coverage of services and secondhand goods;
- the provision of improved product safety information to businesses and consumers;
- new requirements for businesses to monitor and report on the safety of their products;
- the establishment of product hazard early warning information systems;
- the linking of product safety information systems;
- increased government and industry funding of product

safety research;

- a requirement for businesses to recall unsafe products;
- a government power to audit product recalls;
- measures to harmonise product safety legislation, administration and enforcement; and
- measures to enhance the making of product safety regulation decisions by the Australian Government.

As part of the study, the Commission has been asked to:

- Assess the extent to which the Australian Consumer Product Safety System is able to achieve its objectives; and to
- Examine the direct and indirect economic and social costs and benefits of the reform options listed above, as well as those of the current consumer product safety system.

Submissions made to the Ministerial Council on Consumer Affairs can be accessed at www.consumer.gov.au/html/Consumer_Product_Safety_Review/submissions.html

Submissions to the current process closed in May. The submissions will be posted to the Productivity Commission's website as they become available: www.pc.gov.au

By registering an interest in the study, it is possible to receive circulars and other information from the Productivity Commission: www.pc.gov.au/study/productsafety/registrationform.html The Commission will also post updates on the Study's progress on its website.

For further information about the product safety study, contact Maggie Eibisch, Tel: 02 6240 3206 or Sue Holmes, Tel: 02 6240 3351, Fax: 02 6240 3300; Freecall for regional areas: 1800 020 083; E-mail: productsafety@pc.gov.au



From the Coroner

Diving accidents

In 2004, the South Australian Coroner, Wayne Chivell, handed down his findings on five cases of drowning among divers that had occurred between February 2001 and 21 April 2002. The Coroner pointed to a number of similarities between these cases:

- A lack of cardiovascular fitness in four cases.
- Four cases of obesity.
- Medical conditions: Three cases of an enlarged heart, and one of myocarditis; three cases of lung disease, two of back problems, one of oesophageal reflux, and one of ear problems.
- Wet suit being too tight, interfering with breathing and possibly causing reflux.
- A weight belt that was too heavy, causing excessive fatigue.
- A weight belt that could not be quickly released.
- One case in which the 'Buddy System' broke down.
- Two cases of poor diving technique.
- Two cases in which the diver had recent training but was inexperienced.
- Three cases in which the diver was experienced but had not had recent training.
- One case in which the diver had been told not to dive by a cardiologist, but had ignored that advice.
- One case in which the diver had misled the medical practitioner during a diving-related medical examination.

In giving evidence at the Inquest, Dr Acott, Director of Diving Medicine at the Royal Adelaide Hospital, said that in his opinion all of these deaths were preventable.

The Coroner made a number of recommendations:

- All persons engaged in recreational underwater diving should undergo an examination by a registered general medical practitioner trained in hyperbaric medicine on a regular basis, preferably every 12 months, but at least every two years.
- Medical practitioners should decline to conduct such examinations unless they are appropriately qualified.
- Medical practitioners conducting such examinations should, if they are not the subject's regular medical practitioner, require the subject to produce a referral letter detailing the subject's medical history.
- Medical practitioners conducting such examinations should warn the subject that diving is a potentially lethal activity if undertaken by a person with certain medical conditions, and that absolute honesty in providing background medical history is called for.
- If there is any doubt about the subject's health, the medical practitioner should arrange such follow-up tests as chest X-rays, hypertonic saline tests, or whatever else may be indicated, before passing the subject as fit to dive. Any

doubt should be resolved against passing the subject as fit, until such follow-up tests demonstrate fitness to dive.

- The recreational diving industry should conduct an awareness campaign among its member organisations and the diving public about the dangers of diving with certain medical conditions, the need for regular medical examinations at least every two years, the need for absolute honesty during such examinations, and the responsibility a diver has both personally and to his or her diving colleagues to ensure that he or she is fit to dive.

The full findings on these cases are available at www.courts.sa.gov.au/courts/coroner/findings/

All-terrain vehicles

Findings have been published by Tasmanian coroners in relation to five cases of death associated with all-terrain vehicles (ATVs) during 2003 and 2004. The circumstances surrounding these cases were as follows:

Case 1

A young farm labourer died as the result of a traumatic brain injury consistent with involvement in an all-terrain vehicle rollover. From the evidence it appeared that the deceased had driven into a dip, in a paddock, at such a speed that the front of the ATV had hit the relatively steep lip on the other side of the dip, forcing the vehicle to tumble end to end. The deceased was not wearing a helmet. Upon taking up his employment at the dairy farm, he told the manager that he was an experienced rider of four wheel bikes and was taken at his word.

Case 2

A young man died as the result of multiple injuries he sustained in an accident involving an ATV. The deceased commenced riding on the beach with a group of friends at 1.00 am, carrying a pillion passenger. Part way along the beach, the deceased's ATV collided with a low-lying outcrop of rock. Both the deceased and his passenger were thrown from the ATV.

The deceased was wearing a helmet. A blood test revealed that he had a blood alcohol concentration of 0.16%. Examination of the vehicle showed that it was in good operating condition. The deceased had only owned the ATV for approximately two weeks before the accident and was not familiar with the section of beach where the accident occurred. He had also never carried a pillion passenger on the ATV.

The ATV's operator manual and several metal plates attached by the manufacturer to the ATV carried warnings of relevance to this incident: never carry pillion passengers; passengers can cause a loss of control resulting in severe injury or death; overloading can cause loss of control; maximum vehicle load 100 kg; never operate without proper training or instruction;

Continued on page 14



From the Coroner

never operate at speeds too fast for your skills or the conditions; never use with alcohol or drugs.

Case 3

A teenage student died when he suffered head injuries in an ATV accident. He had been at a party on a country property and had taken the vehicle on a ride along the driveway. Some 20 minutes later, guests at the party found the ATV beside a left hand bend in the driveway; it had left the driveway, collided with a wire fence and overturned. The deceased was lying nearby.

The driveway's surface was gravel and it had been subject to heavy rain during that afternoon. Tyre marks showed that the ATV had failed to negotiate the left hand bend.

Inspection of the vehicle showed it to be in poor roadworthy condition. The rider was not wearing a helmet, had little prior experience of riding ATVs, had received no training or instruction, and had a blood alcohol reading of 0.02.

Case 4

Head injuries were the cause of death of an 8 year old child involved in an ATV accident.

The incident occurred on a country property. There were three people on the ATV when it crashed: two adults and the deceased child. None was wearing a helmet. As the bike started to move forwards, it suddenly went into full power. Despite an attempt to avoid the driveway fence, the power of the engine was such as to make the vehicle understeer. One wheel hit a fence post causing the vehicle to overturn. The two adults were thrown clear but the deceased remained with the bike which overturned on top of her.

The ATV was comparatively new and in good condition. Two safety decals were affixed to the front mudguard. These decals displayed several warnings including the need for a helmet or safety gear, and admonitions to never carry passengers and not to use the vehicle with drugs or alcohol.

Case 5

A middle aged man died of an injury to the cervical spine after involvement in an ATV accident.

On a group excursion, the deceased became agitated after he was unable to repair an exhaust pipe that had become detached from the vehicle. He resumed his ride at speed and was observed to be standing on the vehicle's foot pegs as he rode. His speed was estimated at between 30 and 70 kph. He overtook the other riders. A short time later they found the ATV with the deceased man lying pinned beneath it.

A tyre mark at the scene suggested that a right hand wheel of the ATV had struck a raised portion of the centre of the track. The deceased was not wearing a helmet. Inspection of the vehicle found it to be in a defective mechanical condition due to an inoperative brake, visible wear to the front and rear suspension and a corroded and broken exhaust system.

Among the observations and recommendations made were the following:

- One coroner pointed to the hazardous nature of these vehicles, observing that, although they accounted for just under 1% of all vehicles in Tasmania, they were involved in over 7% of all vehicle-related deaths.
- It was observed that many ATV accidents involve a rollover where the rider or passenger has stayed with the vehicle and been crushed by its sheer weight. The Director of Tasmania's Forensic Services, Dr Christopher Lawrence, offered his opinion that significant neck injuries won't be protected by the wearing of a helmet. (Head and upper neck injuries had been present in five of the seven ATV-related deaths he had investigated).
- There was concern about farm workers' attitudes to the wearing of helmets. One reason given for the reluctance to do so was that they would impede hearing. A suggested response to this concern was an ATV safety helmet that had recently become available in New Zealand. Known as the 'AgHat', it is a versatile, lightweight helmet, fully ventilated and cut above the ears to ensure hearing is not impeded. It is also a multi-fit item which may benefit farms where two or more farmhands must use the same helmet at different times.
- It was recommended that the authorities responsible for the licensing of motor vehicle drivers give serious consideration to the speedy implementation of a regime requiring all users to hold a specific all-terrain vehicle licence. Such a licence would require successful completion of a course to train persons in the safe and correct use of ATVs.
- It was noted that there had been proposals to attach rollbars to ATVs. The coroner indicated that this would also require the use of seat restraints. Responses from farm workers to the use of rollbars was that it would interfere with their day-to-day functions (e.g. going under low trees or driving under arches).
- One of the coroners noted a reluctance on the part of riders to comply with manufacturers' recommendations and warnings.
- Among the coroners' recommendations was that training courses (perhaps offered by the manufacturers) should become mandatory for all new purchasers of ATVs and that there be frequent refresher courses for experienced riders.
- It was also recommended that insurance companies should consider a discount on worker's compensation premiums for all policy holders who provide satisfactory evidence of having completed a training or refresher course covering themselves and their employees.

The full findings on these cases are available at: www.courts.tas.gov.au/magistrate/decisions/coroners

The Queensland Injury Surveillance Unit's (QISU) *Bulletin 81* included an informative report on injuries associated with ATVs. The *Bulletin* can be accessed at: www.qisu.org.au/modcore/PreviousBulletin/frontend/index.asp

A picture of Australia's children

Recently published by the Australian Institute of Health and Welfare, *A Picture of Australia's Children* is the third national statistical report on the health, development and wellbeing of Australia's children aged 0-14 years. A description of the childhood injury experience is among its contents.

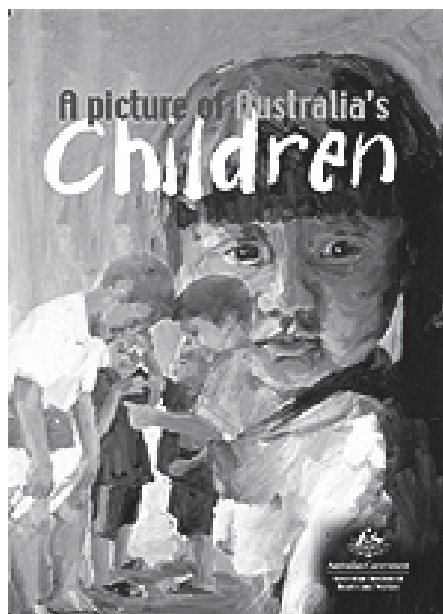
In 2003 there were approximately 3.9 million children aged less than 15 years—around 20% of the Australian population. Indigenous children made up about 4.5% of the total population.

Although the injury death rate declined by around 60% from 1983 to 2003, it remains the major cause of death for children aged 1-14. (Deaths due to some perinatal conditions are more frequent during the first year of life.)

Injury hospitalisations

During the 12-month period 2002-2003, injury was the most common reason for hospitalisation in the 1-14 year age group. In this age group, the most prominent causes of injury-related hospitalisations were falls (628.1 per 100,000 population); pedal cycles (98.1 per 100,000); and accidental poisoning (80.8 per 100,000).

There were distinct age patterns. Assault was more common in infants under 1 year of age; accidental poisoning and burns and scalds were most frequent among children aged 1 to 4 years; and



pedal cycles caused most of the admissions to hospital among children in the 10-14 year age group.

Boys were far more likely to be admitted to hospital as the result of an injury, with a rate of 2,006.3 per 100,000 population. The rate for girls was 1,268.8 per 100,000. The highest rate for boys was in the 10-14 year age group (2,282.1 per 100,000), and for girls, in the 1-4 year age group (1,624.7 per 100,000).

Injury deaths

In 2003, there were 276 injury deaths, making injury the leading cause of mortality during that year (it accounted for 15% of all childhood deaths).

During the three-year period 2001-2003, the three most common types of injury death were those related to transport (2.7 per 100,000 population); drownings (1.2 per 100,000) and assaults (0.6 per 100,000).

Population differences

Some factors such as sex and socio-economic background can affect the risk of injury.

Children of low socio-economic status, and Indigenous children, are more likely to suffer the effects of injury from house fires or assault. Available literature also suggests an increased risk associated with sole parenthood, low maternal education, young maternal age at birth, poor housing, large family size, and parental drug or alcohol abuse.

The report also includes other chapters of relevance to injury: Child abuse and neglect; and Children as victims of violence.

The report can be downloaded from the AIHW website: www.aihw.gov.au/publications/index.cfm/title/10127 Printed copies are available, for \$30, from CanPrint, Tel: 1300 889 873, Fax: 02 6293 8333, Email: sales@infoservices.com.au

Helping keep kids safe on Western Australia's roads

Western Australia's Road Safety Council (RSC) is proposing a range of reforms to the way in which its novice drivers are trained. A discussion paper, *Helping keep our kids safe on Western Australia's roads*, outlining its recommendations has been released for public feedback.

The RSC's recommendations include the following:

- Increasing the minimum number of supervised and logged driving hours required from 25 hours in one Learner phase to 120 hours over two Learner phases.
- A minimum of six months for the

Learner Phase 2 period.

- An increase in the maximum time a Learner can stay on their Learner's Permit to three years with no renewal fee.
- Extension of the Provisional (P-Plate) licence period from two to three years.
- Tightening of the requirements for supervising drivers, particularly in relation to the blood alcohol concentration limit.
- Introduction of nighttime driving restrictions for P-Plate drivers for the first six months of their Provisional period.
- Introduction of peer passenger

restrictions for Provisional drivers for the first six months of their Provisional period.

- Introduction of a zero blood alcohol concentration limit for both Learner and Provisional drivers.
- Introduction of a graduated demerit point system and issue of warning letters to deter unsafe driving practices.

A copy of the discussion paper can be viewed at

www.officeofroadsafety.wa.gov.au/novicedriverreview/

Comments on the discussion paper are due by 12 July 2005.

Injuries due to dishwasher detergent

The Website of the Australian Consumers' Association (ACA) carries an article alerting people to the dangers posed by dishwasher detergents. The cited case of a Queensland toddler who suffered horrific injuries when he swallowed highly caustic dishwasher detergent at the end of last year is particularly tragic. The 18 month old had wandered out of his mother's sight for only a brief moment in which he gained access to a bottle of dishwasher detergent from the cupboard under the sink. The result was the burning away of his epiglottis—the valve-like structure at the back of the throat that stops food and drink getting into the windpipe—leaving him with permanent medical problems. This incident has prompted the establishment, in Queensland, of a special working party to investigate this issue.

The ACA has obtained injury surveillance data from Queensland and Victoria in relation to dishwasher detergent. In the six-year period to the end of 2004, the Queensland Injury Surveillance Unit at the Mater Hospital (which collects data from 15 different emergency departments) recorded 76 cases where children had swallowed dishwasher detergent. The Victorian Emergency Minimum Dataset (which records data from 28 hospitals) identified 207 cases over eight years to mid 2004.

The packaging of dishwashing detergents is a matter of concern. It is possible to purchase the product in a simple cardboard box with no child-resistant closures (CRCs). The bottles available on the market do tend to have child-resistant closures but, while the ACA concedes that these have reduced the number of poisonings over the years, many of these closures are simply not effective. CRCs should prevent access to substances that could be dangerous to children. They should make it difficult for a young child to open the container, but not too tricky for an adult to reseal it, otherwise it's likely it won't always be resealed properly after use.

As far as dishwasher detergent bottles are concerned, not all their CRCs are designed in the same way, and they are generally easier to open than medicine bottles. To open the bottles generally requires squeezing them whilst turning the cap. However, the mechanisms in place for closing the bottles varies—some require the cap to be turned until it has clicked into place *twice*. The latter type of bottle was the kind involved in the poisoning of the Queensland toddler. The instruction for sealing the bottle securely was not stated anywhere on the packaging. Many of the ACA's staff were unaware of the 'two clicks to close' mechanism.

The article on the ACA Website contains additional information on this topic, including brand-specific details, that is well worth a look: www.choice.com.au/viewArticle.aspx?id=104761&catId=100512&tid=100008&p=1

This item is based on information derived from the Website of the Australian Consumer's Association.



The 8th World Conference on Injury Prevention and Safety Promotion will be held in Durban, South Africa from the 2-5 April 2006.

The Conference will have the following major themes:

- Road Safety
- Violence Prevention
- Workplace, Institutional And Home Safety
- Trauma Management, Rehabilitation And Disaster Management
- Leisure Related, Sport And Product Safety
- Safe Communities
- Data Production And Consumption
- Cross-Sectoral And Multi-Disciplinary Linkages

The deadline for abstracts and scholarships for the Conference is October 2005.

We'll keep you informed, through the *Monitor*, about future developments with the Conference.

Conference website: www.safety2006.info

Survey of Aboriginal children and young people

In April of this year, the Telethon Institute for Child Health Research in Western Australia released the second volume of its report *The Social and Emotional Wellbeing of Aboriginal Children and Young People*.

This report, and its predecessor, *The Health of Aboriginal Children and Young People*, used data from the Western Australian Aboriginal Child Health Survey undertaken in 2001 and 2002. The survey used a random population-based sample of Aboriginal children under the age of 18 to examine their physical, social and emotional well-being. The Survey of 5,289 Western Australian children was conducted with a heavy emphasis on consultation with Aboriginal communities and with consideration being given to Indigenous cultural issues.

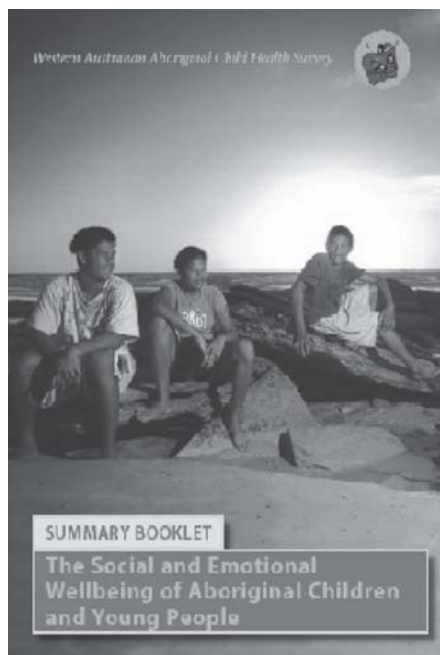
A detailed questionnaire was administered to the carers of those children in the sample. Children aged between 12 and 17 were independently administered certain sections of the questionnaire. In addition, carers were asked to give permission for access to birth and hospital records for their children through the Western Australian Data Linkage Project. Most agreed to this request. The school principal and teachers of surveyed children from 388 schools were also contacted.

Volume 2 focuses on the social and emotional well-being of 3,993 children aged 4-17 years, and contains information that will be of interest to people working in the area of injury.

Emotional and behavioural difficulties

Of the estimated 22,900 Aboriginal children aged 4 to 17 years, and resident in Western Australia at the time of the survey, 24% were assessed by their carers as being at high risk of clinically significant emotional or behavioural difficulties. This compares with 15% of non-Aboriginal children. The level of such difficulties was lowest in areas of extreme isolation. This suggests that growing up in isolated areas, where adherence to traditional culture and ways of life is strongest, may be protective against emotional and behavioural difficulties in Aboriginal children.

The factor found to be most strongly associated with a high risk of significant emotional or behavioural difficulties was the number of major life stress events (e.g. illness, family break-up, arrests or financial difficulties) experienced by the family during the past 12 months. 39% of children living in households that had experienced



7 or more life stress events were at high risk of significant emotional or behavioural difficulties compared with 14% of children living in households that had experienced 0 to 2 such events.

Suicidal behaviour

Among the survey findings on suicidal behaviour were the following:

- More than one in six young people aged 12 to 17 years had seriously thought about ending their own life in the 12 months prior to the survey.
- A lower proportion (12%) of males had considered suicide during the previous 12 months than females (20%).
- Of the estimated 1,420 Aboriginal young people who had seriously considered ending their life in the 12 months prior to the survey, 39% had attempted suicide during that period.
- A higher proportion of young people at high risk of clinically significant emotional or behavioural difficulties had seriously thought about ending their life (37%) compared with young people at low risk (10%).
- A greater proportion of young people who had been exposed to family violence had considered ending their own life compared with those who had not been exposed (9%).

Substance use

Self reporting elicited the following information from 12-17 year olds:

- 27% of young people drink alcohol. At 17 years of age, 61% of males and 43% of females were drinking alcohol.
- In areas of extreme isolation only 8% of young people consume alcohol compared with 31% of those living in the Perth metropolitan area.
- Almost one in five young people had been in a car with a drunk driver in the previous six months.
- 30% of young people have used marijuana at some time.
- Among 17 year olds, 45% of males and 21% of females use marijuana at least weekly.

The report contains a range of other information including family and household factors; physical activity; self-esteem; and the effects of forced separation.

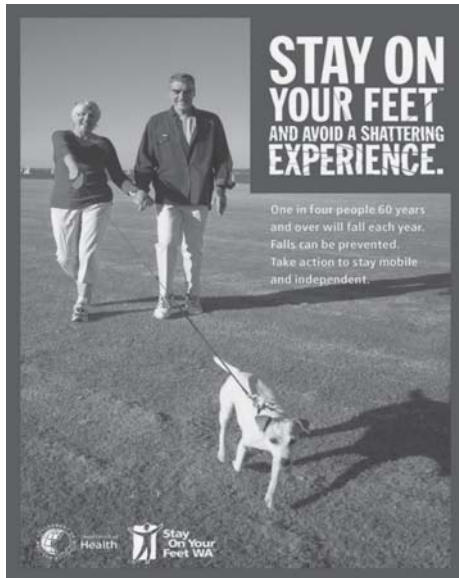
Both volumes 1 and 2 can be downloaded from the Internet: www.ichr.uwa.edu.au/waachs/ Printed copies can be purchased for \$80 from the Telethon Institute for Child Health Research, PO Box 855, West Perth WA 6872, Fax: 08 9489 7700. Enquiries about the report should be directed to Professor Stephen Zubrick, Tel: 08 9489 7714, E-mail: steve@ichr.uwa.edu.au

Injury Webinars

The Center for Injury Research and Control (CIRCL) at the University of Pittsburgh offers a range of what it has designated 'webinars' on its website. These are audio visual presentations designed to provide examples of exemplary programs, best practices, and overviews of practical topics of interest to injury control workers in a variety of settings. The webinars are, in the first instance, offered live to people resident in the United States. Thereafter they are archived for easy access. There is a wide range of topics available. You can access these at: www.circl.pitt.edu/home/past_seminars.htm



A new look for Stay On Your Feet WA™



A multi-faceted statewide social marketing campaign was launched by the Department of Health in May 2005 to increase attention on seniors' falls and to enhance existing Stay On Your Feet WA™ program activity.

Co-funded by the Office of Seniors Interests and Volunteering, the social marketing strategy supports the WA Active Ageing Strategy and promotes a positive 'take control' approach to falls prevention. The campaign has two key messages:

- That falling is a serious health issue, which can have shattering consequences on mobility and independence
- That seniors can take positive action to prevent falls by following the nine steps to Stay On Your Feet™.

Communications emphasise that falling is not a normal part of ageing, and that seniors can take easy steps and readily access assistance and advice from local health professionals.

The Stay On Your Feet WA™ campaign aims to help seniors maintain a healthy and active life by highlighting simple measures to help prevent falls before they occur—such as being active, managing medicines and health, improving balance, regularly checking eyesight, and identifying and removing hazards.

Targeting Western Australian seniors aged 60 years and over, the campaign uses an integrated marketing communications approach featuring television advertising, press advertising, a new range of education and information resources, a comprehensive publicity strategy, community-based and volunteer activities and targeted communications to seniors and key health professionals, particularly GPs and pharmacists.

The new suite of resources include the handy Stay On Your Feet WA™ booklet, brochure and checklist which provide detailed information about falls and practical steps to reduce the risk. For copies of these resources, phone HealthInfo on 1300 135 030 or visit the Stay On Your Feet WA™ website: www.stayonyourfeet.com.au

Draft Swimming Pool Standards

Two draft standards have been released for public comment. Both are proposed revisions to existing standards governing swimming pool safety.

The first draft, Swimming Pool Safety, Part 1: Safety barriers for swimming pools is a proposed revision of AS 1926.1—1993. The second, Swimming Pool Safety, Part 2: Location of safety barriers for swimming pools, is a proposed revision of AS 1926.2—1995.

Both drafts can be accessed on the Internet: Part 1 at www.standards.com.au/Catalogue/script/Details.asp?DocN=MSWD05245ATCRD and Part 2 at www.standards.com.au/Catalogue/script/Details.asp?DocN=MSWD05246ATCRD

Comments are invited on the technical content, wording and general arrangement of the draft. The closing date for comment is 11 July 2005.

Standards Australia would prefer to receive comments on a form they have provided for the purpose: www.standards.com.au/Catalogue/misc/Public%20Comment%20Form.doc

The closing date for comments is 11 July 2005.

For further information, contact Standards Australia Customer Service Centre, Tel: 1300 65 46 46, E-mail: <mailto:sales@standards.com.au>

Share your information

The Research Centre for Injury Studies has added a noticeboard to its website for any breaking news on an injury-related subject. We'd like to invite you to let us know if there is any information you'd like to share around.

Our website receives around 18,000 hits each month, so it's a great place to let people know about your work. We'd love to hear about new publications, research, programs or other injury initiatives.

Remember, too, that our website has a section dedicated to coming events. This is a very popular part of our website and we welcome information about conferences, seminars and courses. We also use this information as the basis for our *Diary* section of the *Monitor*.

To have something added to either the *Noticeboard* or *Coming events* is a simple matter of contacting Renate Kreisfeld at RCIS, Tel: +61 8 8201 7624; E-mail: renate.kreisfeld@flinders.edu.au



Mexican ICE

During June, the International Collaborative Effort (ICE) on Injury Statistics met in Cuernavaca, Mexico. The Mexican venue was chosen to encourage attendance by delegates from Latin and Central America, many of whom are engaged in setting up surveillance systems in their countries of origin.

Among the presentations made at the meeting were the following:

Saakje Mulder, The Netherlands, *International Classification of Diseases (ICECI)*

Lee Annest, USA, *NEISS: All Injury Program*

James Harrison, Australia, *Indicators*

Nancy Stout, USA, *Occupational injury*

Susan Mackenzie, Canada, *Hospitalisations Data*

Ian Scott, WHO Geneva, *WHO update*

Margaret Warner, USA, *Selecting a main injury when using mortality data*

Yvette Holder, Jamaica, *Overview of ICE-related surveillance activities*

Martha Hijar and Rafael Lozano, Mexico, *Injury Information systems in Mexico: advances and challenges*

Eugenia Rodrigues, Brazil, *Mortality data collection and public hospitalisation data in Brazil*

Luciana Barreto Phebo, Brazil, *The impact of firearm injury in Brazil*

Francisco Tercero, Nicaragua, *Injury surveillance work in Nicaragua*

Maria Isabel Guterrez and colleagues, Colombia, *Application of surveillance systems in mortality data and domestic violence: ICECI in Colombia*

Patricia Brandon, Barbados, *Strengthening violence and injury surveillance in the Eastern Caribbean:*

challenges and opportunities

Ron Hebert, Jamaica, *Jamaican injury surveillance system*

Diego Zavala, Puerto Rico, *Organising a pilot project on violent injury surveillance: opportunities and obstacles*

Richard Matzapoulous, South Africa, *The National Injury Mortality Surveillance System: an overview of fatal injury surveillance in South Africa*

Olive Kobusingye, Republic of Congo, *Injury surveillance efforts in the Africa Region supported by WHO*

Chamaiparn Santikarn, Thailand, *From provincial to national: the development of injury surveillance in Thailand*

Danuta Rajs, Chile, *External causes of morbidity and mortality in Chile*

Ingrid Waisman, Argentina, *Overview of injury mortality in Argentina*

Alberto Inon, Argentina, *Pediatric Trauma Program: pediatric trauma registry and information systems for epidemiology and surveillance*

Marta Vacchino, Argentina, *Developing a national injury surveillance system*

All of the above presentations were videotaped and copies will be made available for viewing via the ICE on Injury web page when they have been processed. We'll let readers know more in our next edition of the *Monitor*. For people who become too impatient to wait for the next *Monitor*, paying a visit to the ICE on injury website in the near future might provide information about when the videos are expected to become available: www.cdc.gov/nchs/advice.htm

Something to read ...?

The 2004 National Drug Strategy Household Survey: State and Territory Supplement

Produced by the AIHW, this report presents data on patterns of drug use in each of the states and territories. It supplements the national findings from the *2004 National Drug Strategy*

Household Survey: First results report, published in April 2005. The results are based on a survey of almost 30,000 Australians conducted in 2004, and provide profiles of drug use and policy support in each of the states and territories.

The report is only available on the internet. It can be downloaded from the AIHW website: www.aihw.gov.au/publications/index.cfm/title/10133

National Comorbidity Initiative

The AIHW has published a review of data collections relating to people with coexisting substance use and mental health disorders. The purpose of the report is to support one of the priority areas under the *National Illicit Drug Strategy*.

Copies of the report can be downloaded from the AIHW website:

Something to read ...?

www.aihw.gov.au/publications/index.cfm/title/10132 Printed copies are available, free of charge, from the Department of Health and Ageing, Tel. 1800 020103 ext. 8654, Fax 02 6289 8360, E-mail: nmm@nationalmailing.com.au

Australian Hospital Statistics 2003-04



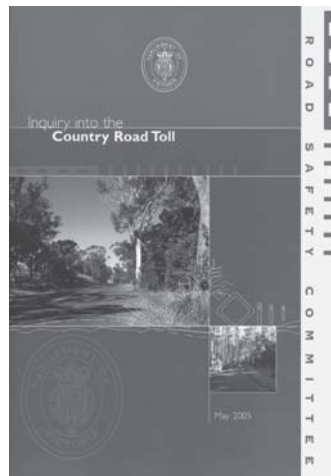
This report provides an eleventh year in the Institute's comprehensive annual statistical reporting of statistics on Australia's hospitals. Detailed information is presented on hospital care and hospitals in 2003-04, as are summaries of changes over time, and comparisons between public and private hospitals. Included are statistics on admissions to public and private hospitals in 2003-04, covering the age and sex of patients, diagnoses, procedures, length of stay and waiting times for elective surgery. The report also contains information on hospital expend-

iture, revenue and bed numbers, and a range of hospital performance indicators reported using the *National Health Performance Framework*. Included for the first time in 2003-04 are more comprehensive statistics about patients who presented to selected public hospital emergency departments. The statistics now cover patients' demographics, triage categories, waiting times, durations of care and a range of other data. This report is a useful resource for health planners, administrators and researchers with an interest in the Australian hospital system.

The report can be downloaded from the AIHW website: www.aihw.gov.au/publications/index.cfm/title/10130

Printed copies are available for \$40.00 from CanPrint, Tel: 1300 889 873, Fax: 02 6293 8333, Email: sales@infoservices.com.au \$40.00

Inquiry into the Country Road Toll



The Parliament of Victoria's Road Safety Committee recently released the report of its inquiry into the country road toll. The Committee's brief was to report on the factors that contribute to the unacceptably high road toll in country Victoria, in particular:

- the incidence and causative role of speed, drugs, alcohol and fatigue in rural road crashes;
- the role of the road and roadside environment in the causation and severity of crashes;
- the contribution to crash causation of vehicle features, such as cruise control and navigation systems, and the extent and effectiveness of enforcement activities.

The Committee was asked to examine and consider measures which could be introduced to reduce the incidence and severity of such crashes.

A copy of the report can be downloaded from www.parliament.vic.gov.au/rsc/countryroadtoll/

Diary

Note: where available, Internet addresses have been provided below for conference websites. For those meetings that don't have their own website, more detailed descriptions of the events are normally available at our website: www.nisu.flinders.edu.au/events/

Coder Training Course: ICD-10 4-15 July 2005

Brisbane

Contact: Sue Walker, National Centre for Classification in Health, Tel: +61 7 3864 5873, Fax: +61 7 3864 5515, E-mail: nccch.brisbane@qut.edu.au

3rd Australasian Conference on Safety and Quality in Healthcare

11-13 July 2005

Adelaide

Contact: SAPMEA, Tel: +61 8 8274 6060, E-mail: aaqhc-aha05@sapmea.asn.au Website: www.sapmea.asn.au/conventions/aaqhc2005/index.html

IUTAM Symposium on Impact bio- mechanics

11-15 July

Dublin, Ireland

Contact: Department of Mechanical Engineering, Tel: +353-1-7161890, Fax: +353 1283 0534, E-mail: iutam@ucd.ie Website: www.ucd.ie/iutam2005

Bridging the Gaps: 2nd Rural Mental Health Conference

13-15 July 2005

Warrnambool, Victoria

Contact: Karen Roberts or John Dutton, Aspire, Tel: 03 5560 3000, E-mail:

kroberts@aspire.org.au Website:
www.aspire.org.au/conference

Short course: Integrating and sustaining community/consumer participation

25-29 July 2005
Adelaide

Contact: Trish Clark, Tel: 08 8204 3005, Fax: 08 8204 5693, E-mail:

trish.clark@flinders.edu.au Website:
som.flinders.edu.au/FUSA/PublicHealth/ShortCourses/crs_shrt.htm

2005 Annual Conference of the Health Information Management Association of Australia

27-29 July 2005

Geelong, Victoria

Contact: Website: www.himaa.org.au/2005/

2005 General Practice & Primary Health Care Research Conference

26-28 July 2005

Adelaide

Contact: Conference Logistics, Tel: 02 6281 6624, Fax: 02 6285 1336, E-Mail: conference@conlog.com.au Website: www.phcris.org.au/events/conference_frameset.html

2005 Australian Institute of Traffic Planning and Management Conference

28-29 July 2005

Brisbane

Contact: Kim Thomas, Tel: +61 8 8410 7488, Fax: +61 8 8410 4688, E-mail: aitpm@aitpm.com Website: www.aitpm.com/Conference_2005/Index.htm

2005 Health Informatics Conference

31 July-2 August 2005

Melbourne

Contact: Tel: 03 9388 0555, E-Mail: hisa@hisa.org.au Website: <http://websites.golden-orb.com/hic/default.php>

5th International Conference on Successes and Failures in Telehealth

4-5 August 2005

Brisbane

Contact: Centre for Online Health, Tel: +61 7 33464754, Fax: +61 7 33464705, E-Mail: sft@ccs.uq.edu.au Website: www.uq.edu.au/sft/

2005 Institute of Transportation Engineers Annual Meeting

7-10 August 2005

Melbourne

Contact: Donna Ford, Tel: +1 202 289 0222, ext. 140, Fax: +1 202 898 4131, E-mail: dford@ite.org Website: www.ite.org/annualmeeting/

International Conference on Engaging Communities

14-17 August 2005

Brisbane

Contact: OzAccom Conference Services, Tel: +61 7 3854 1611, Fax: +61 7 3854 1507, E-mail: info@engagingcommunities2005.org Website: www.engagingcommunities2005.org

2005 World Mental Health Congress: Equity and Mental Health

4-8 September, 2005

Cairo, Egypt

Contact: Giza Mental Health Association, Tel: +202 414 8089, Fax: +202 418 3175, E-Mail: conference@medical-design.net Website: www.medical-design.net/mentalhealth2005

49th Annual Association for the Advancement of Automotive Medicine

11-15 September 2005

Boston, USA

Contact: E-mail: info@aaam.org Website: www.carcrash.org

International Association for Suicide Prevention: XXIII Congress

12-16 September 2005

Durban, South Africa

Contact: International Association for Suicide Prevention, Tel: +27 31 260 1607/1584, Fax: +27 31 260 1606, E-mail: IASP2005@ukzn.ac.za Website: www.med.uio.no/iasp

XVIth World Congress on Safety and Health at Work

18-22 September 2005

Orlando, Florida, USA

Contact, Congress Secretariat, Tel +1 630 285 1121, Fax: +1 630 285 1315, E-mail: customerservice@nsc.org

1st Safe Community Conference on

Injury Surveillance

15-16 September 2005

Trondheim, Norway

Contact: Website: www.trondheim.com/safecity

2005 IRCOBI Conference on the Biomechanics of Impact

21-23 September 2005

Prague, Czech Republic

Contact: Antoinette Charpenne, Tel: +33 4 72 14 24 20, Fax: +33 4 72 14 26 66, E-mail: charpenne@inrets.fr Website: www.ircobi.org

11th European Burns Association Conference

21-24 September 2005

Estoril, Portugal

Deadline for abstracts: March/April 2005
Contact: Maria Angelic de Almeida, Tel: +351 21 884 12 01, E-mail: dircp@hsjose.min-saude.pt Website: www.eba2005-portugal.com

36th Public Health Association of Australia Annual Conference

25-28 September 2005

Perth

Contact: PHAA Secretariat, Tel: +61 2 6285 2373, Fax: +61 2 6282 5438, E-mail: conference@phaa.net.au Website: www.phaa.net.au

6th Annual Alcohol Ignition Symposium

26-27 September 2005

Annecy, France

Contact: E-mail: barbarak@trafficingjuryresearch.com Website: www.ignitioninterlocksymposium.com/

28th Australasian Transport Research Forum

28-30 September 2005

Sydney

Contact: ATRF 2005 Conference Managers, Tel: 02 9265 0700, Fax: 02 9267 5443, E-mail: atrf2005@tourhosts.com.au Website: www.planning.nsw.gov.au/tpdc/atr05/index.html

International Conference on Distracted Driving

2-5 October 2005

Toronto, Canada

Contact: E-mail: barbarak@trafficingjuryresearch.com

13th International Conference on Road Safety

5-7 October 2005
Warsaw, Poland
Contact: E-mail: RS4C@vti.se

6th National Men's Health Conference

9-12 October 2005
Melbourne
Contact: Registration Centre, Tel: 07 4031 5656, Fax: 07 4031 5646, E-mail: mail@regocentre.com Website: www.regocentre.com/nmh2005/nmh.htm

2005 International Evaluation Conference

10-12 October 2005
Brisbane
Contact: Website: www.aes.asn.au/conference/2005/

4th National Aboriginal and Torres Strait Islander Male Health Convention: Shaping Our Future

13-14 October 2005
Melbourne
Contact: Registration Centre, Tel: 07 4031 5656, Fax: 07 4031 5646, E-mail: mail@regocentre.com Website: www.regocentre.com/nmh2005/mhc.htm

Australian Conference of Science and Medicine in Sport

13-16 October 2005
Melbourne
Contact: Angela Cox, Sports Medicine Australia, Tel: 02 6230 4650, Fax: 02 6230 5908, E-mail: acsms@sma.org.au Website: www.sma.org.au/acsms/2005/

4th National Sports Injury Prevention Conference

15-16 October 2005
Melbourne
Contact: Gary Moorhead, Sports Medicine Australia, Tel: Fax: +61 2 6230 5908, E-mail: gary.moorhead@sma.org.au

20th World Congress of the International Traffic Medicine Association

16-18 October 2005
Melbourne
Contact: E-mail: traffmed@vifm.org Website: www.traffmed.org

Diversity in Health Conference 2005

17-19 October 2005
Melbourne
Contact: Conference Secretariat, Tel: 03 9457 7130, E-mail: info@amf.net.au Website: www.mmha.org.au/News/DiversityHealthConference

3rd Asian Regional Conference on Safe Communities

19-22 October 2005
Taipei, Taiwan
Contact: Conference Secretariat, Tel: +886 2 2504 4338 ext. 19 Fax: +886 2 2504 4362 E-mail: cheryl@elitepc.com.tw Website: www.safe2005.com.tw

World Conference on Prevention of Family Violence

23-26 October 2005
Banff, Ottawa, Canada
Contact: Tel: +1 780 415 0085, Fax: +1 780 422 5036, E-mail: info@wcpfv2005.ca Website: www.wcpfv2005.ca/en_home.cfm

22nd Australian Road Research Board Conference

29 October-2 November 2005
Canberra
Contact: ARRB Group, 500 Burwood Highway, Vermont South, Victoria 3133, E-mail: 22conf@arrb.com.au

4th Asia Pacific Conference on Transportation and the Environment

8-10 November 2005
Xian, China
Contact: Tel: +86 10 6491 4809, Fax: +86 10 6491 8204, Website: <http://jtzx.net.cn/apte>

6th Nordic Safe Community Conference

9-14 November 2005
Karlstad, Sweden
Contact: E-mail: inger.larsson@srv.se or tommy.rosenberg@srv.se Website: www.srv.se/nscc

2nd International Conference on Driver Behaviour and Training

15-17 November
Edinburgh, Scotland
Contact: Driving Research Unit, Cranfield University, E-mail: l.dorn@cranfield.ac.uk Website: www.cranfield.ac.uk/soe/drive/

[contact.htm](#)

Delivering Crime Prevention: Making the Evidence Work

21-22 November 2005
Sydney
Contact: Conference coordinators, Tel: 02 6292 9000, Fax: 02 6292 9002, E-mail: conference@confco.com.au Website: www.aic.gov.au/conferences/2005-cp/

PhD Course: Research in Injury Prevention and Safety Promotion

Begins 23 January 2006
Stockholm, Sweden
Contact: Moa Sundstrom, Fax: +46 8 33 46 93, E-Mail: moa.sundstrom@sll.se Website: www.phs.ki.se/csp/who_education_en.htm

International Traffic Medicine Association 20th World Congress

5 January 2006
Melbourne
Deadline for Abstracts: 31 March 2006.
Contact: Mick Gould, Convention Associates, Tel: +61 3 9684 4480, Fax: +61 3 9684 4481, E-mail: traffmed@vifm.org

Landscapes of Youth

12-14 January 2006
Stockholm, Sweden
Contact: Fredrik Stiernstedt, E-mail: fredrik.stiernstedt@sh.se Website: www.sh.se/nyris9

PhD Course: Research in Injury Prevention and Safety Promotion

23 January to 6 February 2006
Stockholm, Sweden
Deadline for application: 1 October 2005.
Contact: Moa Sundstrom, Fax: +46 8 33 46 93, E-mail: moa.sundstrom@sll.se Website: www.phs.ki.se/csp/who_education_en.htm

1st International Symposium on Environment, Behaviour and Society

9-11 February 2006
Sydney
Contact: Environment, Behaviour and Society Research Group, Faculty of Architecture, University of Sydney, Tel: +61 2 9351 8765, Fax: +61 2 9351 5665, E-mail: EBSSymposium2006@arch.usyd.edu.au Website: www.arch.usyd.edu.au/web/research/

ebs/ebssymposium.html

10th Australasian Conference on Child Abuse and Neglect

14-16 February 2006

Wellington, New Zealand

Contact: ACCAN, Tel: +64 4 473 8044
Fax: +64 4 473 8042, E-mail:
accan@avenues.co.nz
Website: www.nzfvc.org.nz/accan/

8th World Conference on Injury Prevention and Safety Promotion

19-22 March 2006

Johannesburg, South Africa

Contact: Conference Secretariat, Tel:
+27 12 4812094, Fax: +27 12 4812112,
E-mail: sec@safety2006.info Website:
www.safety2006.info

XII International Winter Road Congress

27-30 March 2006

Torino, Italy

Contact: Tel: +39 0112 446 911, Fax:
+39 0112 446 900, E-mail:
piarc2006@congressiefiere.com
Website: www.aipcr2006.it

Think Before You Act: Effective Treatments for Suicidal Individuals

1-3 April 2006

Aeschi, Switzerland

Contact: Michel Konrad, E-mail:
konrad.michel@spk.unibe.ch Website:
[www.aeschiconference.unibe.ch/
meeting%20the%20suicidal.htm](http://www.aeschiconference.unibe.ch/meeting%20the%20suicidal.htm)

2nd International Seminar on Injury Research Methods

6-7 April 2006

Cape Town, South Africa

Contact: Saakje Mulder, E-mail:
s.mulder@consafe.nl

3rd International Conference on Healthy Ageing and Longevity

28-30 April 2006

Melbourne

Contact: Conference Organisers, Tel: 1300
553 275, Fax: +61 2 6680 9643, E-mail:
cjweller@longevity-international.com
Website: www.Longevity-international.com

3rd Conference of the International Network on the Prevention of

Accidents & Trauma at Work

12-15 September 2006

The Netherlands

Deadline for Abstracts: 30 September
2005.

Contact: ATP Congresses & Meetings,
Tel: +31 70 3766 733, Website:
www.workingonsafety.net

22nd Australian Road Research Group Conference

29 October to 1 November 2006

Canberra

Contact: Website: [www.arrb.com.au/
index.php?option=content&task=view&
id=17&Itemid=38](http://www.arrb.com.au/index.php?option=content&task=view&id=17&Itemid=38)

18th Annual Australian Winter School on Alcohol and Other Drugs

4-7 July 2007

Brisbane

Contact: Tel: +61 7 3834 0211, Fax: +61 7
3832, 5625, E-mail: winterschool@adf.org
Website: www.winterschool.info

New on the RCIS website

Kreisfeld R and Harrison J.
*Injury deaths, Australia,
1999 with a focus on the
transition from ICD-9 to
ICD-10.*

www.nisu.flinders.edu.au

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Editor's Note

The *Injury Issues Monitor* is the journal of the Research Centre for Injury Studies at the Flinders University of South Australia.

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