

# INJURY ISSUES MONITOR

## Welcome to Warrnambool site of the 5th National Injury Conference

### Welcome from Darryl Pedler:

*Injury 2001* incorporates both the 5<sup>th</sup> Australian Injury Prevention and Control Conference and the 4<sup>th</sup> National Farm Injury Prevention Conference and will be held at the Warrnambool campus of Deakin University.

The conference theme is *Linking research, policy and practice for safe, injury free communities*. While papers are welcome on any injury prevention subject, particular focus will be placed on farm safety, Indigenous safety, personal safety, rural occupational health and safety, safe communities, safe sport and rural occupational health and safety. In addition to paper and poster presentations, there will be site visits to a range of industries (eg abalone processing, stone masonry, aluminium smelter) and dairy and sheep farms in the area. James Harrison of the

Research Centre for Injury Studies is chairing an eminent Scientific Committee and we are looking forward to an exciting program.

There are many ways to get involved. An initial *Expression of Interest* will be released at the end of May. For those wishing to present a paper, abstracts are due by 18th May, and that's not far away! Details of travel options, accommodation, local highlights and the social program will follow.

Warrnambool is 262 km south-west of Melbourne and is the western gateway to the famous Great Ocean Road. In winter a number of southern right whales visit and can usually be seen easily from the foreshore. As many people already know, it's a great spot for a holiday!

The Organising Committee is based in Warrnambool and contact details for the conference secretariat can be found below.

I look forward to seeing you in Warrnambool in September.

**Inquiries can be directed to the Injury Prevention 2001 Conference Secretariat, RMB 6200, Glenormiston College, TERANG Victoria 3264, E-mail: [injury-prevention@unimelb.edu.au](mailto:injury-prevention@unimelb.edu.au)**



Dr Darryl Pedler  
Injury 2001 Co-ordinator

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## Injury on the Internet

The Center for Injury Research & Control (CIRCL) at the University of Pittsburgh in the USA has recently made its Autumn 2000 Seminar Series: *The Science and Practice of Injury Control* available on the Internet: [www.circl.pitt.edu/home/seminar%20archive.htm](http://www.circl.pitt.edu/home/seminar%20archive.htm) The seminars can be viewed in a range of formats from the all-singing, all dancing video/audio/graphics version to less sophisticated downloadable power point presentations. The seminars vary in length between 40-60 minutes and include the following topics:

- **The Technology and Role of Probabilistic Data Linkage in Injury Surveillance and Research.** Michael Dean, University of Utah School of Medicine.
- **Sports-related Concussion, Physiology, Epidemiology and Return-to-Play Policies.** Michael Collins, Concussion Center, University of Pittsburgh.
- **Alcohol and Injury: Epidemiology and Interventions.** Linda C. Degutis, Yale University.
- **Tracking the Silent Epidemic: Traumatic Brain Injury Surveillance & Registries.** Jean Langlois, National Center for Injury Research & Control at Centers for Disease Control (CDC).
- **Evidence-Based Reviews of Injury Interventions: What Works in Injury Prevention & What Does Not.** Diane Thompson, Harborview Injury Prevention & Research Center.
- **Measuring Injury Severity.** Ellen Mackenzie, Johns Hopkins University.
- **Injuries to Adolescent Workers.** Dawn Castillo, National Institute of Occupational Safety & Health.

## ICD-10-AM Resources

The Australian modification of the International Classification of Diseases (ICD-10-AM) is the major tool used for coding and classifying Australia's health data (including injury data). In July 2000, the second edition of ICD-10-AM was implemented in Australia. The National Centre for Classification in Health (NCCH) has produced a number of resources to assist the implementation process. These include:

- 1 An electronic, fully searchable, version of ICD-10-AM 2nd Edition.
- 2 ICD-10-AM Second Edition workshop booklets consist of a workbook with practical scenario exercises, exercise answer booklet and feedback form.
- 3 A series of booklets—including one on injury—providing an introduction to ICD-10-AM, with a particular focus on topics of major change or common usage.
- 4 Mappings between ICD-9-CM and ICD-10-AM, and between the first and second editions of ICD-10-AM.

The first two items are available for purchase from NCCH (see the NCCH website for further details). Items 3 and 4 can be downloaded free of charge from the NCCH Website:

[www.cchs.usyd.edu.au/ncch/](http://www.cchs.usyd.edu.au/ncch/)

NCCH can also be contacted on Tel: 02 9351 9461; Fax: 02 9351 9603.

## Editorial

The *Injury Issues Monitor* reaches its 21<sup>st</sup> (issue, not birthday!) nearly half-way between the 4<sup>th</sup> and the 5<sup>th</sup> in Australia's series of national conferences on injury prevention and control.

The 4<sup>th</sup> national conference was part of *Injury 2000*, held in Canberra in November 2000. The 5<sup>th</sup> will be part of *Injury 2001*, to be held in Warrnambool in September 2001. Both events are covered in this issue.

Their similarities and differences provide some clues about the state of injury prevention in Australia, and the challenges ahead.

### *Injury and Indigenous Australians*

Unhappily, it's been clear for some time that injury is one of the many aspects of health burden that weigh more heavily on Aboriginal and Torres Strait Islander peoples than on Australians in general. While this issue has been considered at previous injury prevention conferences (first in Sydney in 1995) it has never had a higher profile than it did at *Injury 2000*. A pre-conference meeting, predominantly of Indigenous participants, began to prepare a declaration on Indigenous injury prevention, which was debated and refined during the conference. The Declaration is published in this issue. Indigenous injury prevention was the subject of a plenary presentation (by Associate Professor Cindy Shannon) and a stream of sessions throughout most of the program. While not strictly part of *Injury 2000*, a workshop on data sources for Indigenous injury prevention held in the same venue the day after the conference, added to what was undoubtedly an important step forward in sharing knowledge and prompting action. An acknowledgement is due: Mary Sexton was tireless in ensuring that the conference would give due regard to this topic.

### *Urban and regional Australia*

*Injury 2000* was held in the national capital; *Injury 2001* will be in a regional city. This will be the first of the National Conferences on Injury Prevention and Control not to be held in a capital city—though this is usual for Farmsafe conferences. The special characteristics of injury, its risk factors and its prevention outside metropolitan centres have been considered at previous conferences on injury prevention and control. However, they will be given special attention at *Injury 2001*. Farm safety will be a focus, but so will rural occupational health and safety, travel safety, Indigenous injury prevention and the rest of the spectrum of injury prevention and control topics.

### *Partnerships*

Each in the series of national injury prevention and control conferences has provided a new set of opportunities to develop and build professional connections. Each has been held in conjunction with related conferences—but different ones on each occasion. *Injury 2000* brought together meetings on injury prevention and control, emergency medicine and clinical trauma. *Injury 2001* is a joint meeting, being both the 5<sup>th</sup> National Conference on Injury Prevention and Control and the 4<sup>th</sup> Farmsafe Conference. Injury prevention is a complex endeavour, requiring many skills and perspectives, and these conferences are an opportunity to share knowledge and to establish and build links. The next Conference will continue the tradition, established at its predecessors, of bringing together researchers, practitioners and policy makers with the shared aim of injury prevention and control.

# ***New NISU report on suicide***

Suicide is a prominent public health problem in Australia. Between 1979 and 1998, more than 41,000 Australians have died because of suicide and currently more than 2,500 people die by suicide each year. In addition to 'completed suicides', many Australians are hospitalised each year as the result of episodes of self-harm.

The National Injury Surveillance Unit (NISU) analysed national mortality and morbidity data in order to produce a new report on this important topic. Some of the findings are summarised below:

## ***Trends in suicide deaths***

Suicide is becoming relatively more prominent as a cause of 'external cause' deaths. This is especially true for male suicide deaths and is mainly because deaths from motor vehicle crashes and other 'external causes' are declining and because the all-ages suicide rate for males of all ages have tended to increase slightly in recent years. This phenomenon seems to be fairly similar for females, though it is happening on a much lesser scale.

Youth suicide has received much attention. However, rates for males aged 15-19 years have always been lower than the rates for other groups. Also, although there was a rapid rise in rates at ages 15 to 19 years in the 1980s, the rates for this age group has been fairly stable over recent years. The rise in suicide rates is largely an increase for males aged 20 to 39 years—rates for this age group have continued to increase since the late 1970s and since the early 1990s the suicide rate for this age group has been the highest for all male age groups.

The report also points to an apparent birth cohort effect for male suicide rates. When comparing rates for various age-groups of men born in particular five-year periods (e.g. 1932-1935, 1936-1940), we see that these birth cohorts all have low rates in childhood whereafter the rates rise. A disturbing phenomenon seems to be that the rise in suicide rates with maturity has been larger and steeper for the younger cohorts. It also appears as if the suicide rates reached by birth cohorts in early adulthood persist for a specific cohort.

Hanging has become the dominant means for suicide, especially for males. Moreover, use of this means is accelerating—between 1979 and 1998 the rate of male suicide by hanging has tripled. The rate of suicide by means of a firearm has decreased, roughly in parallel with an increase in motor vehicle exhaust gassing (which became the second most common method for males in 1995).

Up to 1996, poisoning by solid or liquid substances has been the most common method of suicide for females. This suicide rate has continued to decline, showing the tail end of the epidemic of suicide by means of medications that peaked in the 1960s. However, the rate of female suicide by hanging has increased (although much less than for males) and in 1997 and 1998 hanging was a more common method than poisoning by solids or liquids for females.

Age-standardised suicide rates and trends have generally been similar for Australia's States and Territories in the period 1979-1998.

## ***Issues in reporting suicide deaths***

Suicide deaths may be susceptible to misclassification because the intention of the deceased is not always clear, or because

social disapproval might prompt some cases to be recorded as 'accidental' or 'undetermined'. Little empirical information is, however, available on the reliability of data on suicide deaths.

For example, it is often assumed that the number of *death registrations* in a particular period provides a good estimate of the number of *death occurrences*. Recent trends in suicide registrations have indicated that this assumption needs to be investigated from time to time. The data for 1997 were a case in point.

## ***Suicide deaths in Indigenous Australians***

A total of 109 suicides among Aboriginal and Torres Strait Islanders were registered in 1998. Indigenous suicide is sharply concentrated in the younger age groups for both males and females, but the male to female ratio is 6.7:1. When compared to non-Indigenous Australians, rates for ATSI people were higher for age groups up to 45-49 years. Hanging was the most common means of suicide for Indigenous males and females in the period reviewed. For males, the second most common method was firearms, whereas it was poisoning by solid or liquid substances for females.

The report notes that, as for many other health issues, data on suicide by Indigenous Australians have special limitations which almost certainly result in underestimation of the number of Indigenous deaths.

## ***Hospitalised self-harm***

Completed suicide is only one outcome of intentionally self-harming behaviours. One other outcome of these behaviours is hospitalisation. It is not accurate to regard hospitalised self-harm as equivalent to 'attempted suicide' for comparison with 'completed suicide'.

Data on hospitalised self-harm indicated that there was a total of 25,120 episodes of hospital care concluded during the financial year 1997/98. This yielded an age-standardised rate of 137.5 per 100,000 population.

Contrary to what is known about suicide deaths, the rate of hospitalised self-harm seems to be significantly higher for females (the age-standardised rate for males was 116.9 per 100,000, compared with 159.0 per 100,000 population for females). Overall, the male to female ratio was 0:74.

Poisoning by solid or liquid substances was by far the most common method used among self-harm hospital separations for both males (70%) and females (85%). Poisoning by tranquillisers accounted for 37% of all male separations and 47% of all female separations due to intentional self-harm by poisoning. Poisoning by aromatic analgesics (the category which includes paracetamol) was the most common means for females aged 10-19 years.

**Copies of the report on suicide are available from RCIS, Tel: 08 8374 0970; Fax: 08 8374 0702. Further information about the study itself is available from Malinda Steenkamp, Tel: 08 8374 0970; E-mail: malinda.steenkamp@nisu.flinders.edu.au**

# Commonwealth News

## Current Commonwealth activities in injury prevention

The Injury Prevention Section of the Commonwealth Department of Health and Aged Care is concerned with all unintentional injury other than that in the occupational or transport environment.

Key projects underway in the Section include:

- A project to identify the composition of the injury prevention workforce and the development of a classification system with the potential to help identify their skills, knowledge, training and education needs;
- A project to identify child injury related laws, standards and codes of practice designed to prevent non-intentional injuries to children in Australia;
- Working with stakeholders to develop an Indigenous Injury Prevention Plan;
- Providing funding to NISU to collect and analyse injury data to assist in the development of injury prevention policy;
- Commissioning a report on current sports injury data collection, research and interventions in Australia, and
- Supporting a feasibility study into improving data collection on drowning fatalities.

The Section provides Secretariat support to the recently formed Strategic Injury Prevention Partnership (SIPP), a sub committee of the National Public Health Partnership. SIPP has been formed to progress joint national work in the priority areas of injury prevention. The four priority areas are, falls in older people, falls in children; drowning and near drowning; and poisoning among children.

Activities are continuing under the *National Falls Prevention for Older People Initiative* and include:

- Support for an NHMRC Injury Partnership *Prevention of Injuries in Older People*—a collaborative research project examining six areas of falls research, headed by Dr Stephen Lord, at the University of New South Wales. (The project is described on page 14.);
- A project to identify the current state of falls prevention activities in residential aged care settings, and to identify opportunities to increase their uptake;
- Community demonstration projects of best practice in falls prevention;
- The development of a monitoring and evaluation framework for the National Falls Prevention Initiative;
- Extensive information and liaison activities, including the dissemination of newsletters and research reports.

The Section's website can be viewed at [www.health.gov.au/pubhlth/strateg/injury/index.htm](http://www.health.gov.au/pubhlth/strateg/injury/index.htm) which has a link to the recently updated National Falls Prevention for Older People web page. Copies of newsletters and reports can be downloaded from the site, or on-line requests for hard copies can be made.

**For further information, contact Alison Sewell, Director, Injury Prevention Section, (02) 6289 7186, or E-mail: [alison.sewell@health.gov.au](mailto:alison.sewell@health.gov.au)**

# Update on the surveillance of traumatic brain injury and burns

In *Monitor 15* we presented information about moves by this Centre to improve the surveillance of traumatic brain injury (TBI) and burns.

As a result of consultation with key agencies it was resolved that we would publish a report periodically presenting statistical information on hospital separations due to TBI. The first such report is now in production and will be completed by June 2001. It will present basic tabulations on the demographic, epidemiologic, and clinical features, and the health services aspects, of TBI.

Less progress has been made with respect to the surveillance of burns. Although the Australian and New Zealand Burns Association agreed at its 1998 annual meeting to work with this Centre to move toward the testing and implementation of a national database, progress has been slow. Software has been developed at a number of burns units, incorporating the minimum data set proposed by our Centre, and data collection has commenced at these units. However, until all units (there are twelve nationally) have the capacity to contribute to a national collection, we will maintain a watching brief and continue liaison. We will report any significant progress in the *Monitor*.

**For further information, contact Peter O'Connor at RCIS, Tel: 08 8347 0970; [peter.oconnor@nisu.flinders.edu.au](mailto:peter.oconnor@nisu.flinders.edu.au)**

## New look website

Our information technology staff, Steve Trickey and David Robley, have just finished totally revamping our website in the interests of making it more user friendly.

The website exists to provide wider access to our published reports, datasets, and general information about injury in Australia. In its new format, users will be able to more quickly and easily find what they're after by taking advantage of several methods of locating resources. Users can do this by

- selecting from a list of designated *topics*;
- using a *free text* search; or by
- visiting the *site map* which provides a comprehensive list of just about everything to be found at the site.

Pay the site a visit soon:

**[www.nisu.flinders.edu.au](http://www.nisu.flinders.edu.au)**

# Injury burden attributable to alcohol

Attributable fractions are an important tool in elucidating the role of alcohol in injury. That is, attributable fractions can determine the proportion of injuries that could be avoided if people did not drink alcohol. The most important document describing the fraction of injury attributable to alcohol is the work of English *et al.* These authors did a comprehensive review of the international literature to determine the proportion of a variety of diseases and injuries that could be attributed to a variety of drugs. Of these, a recently published NISU report has considered the attributable fractions related to alcohol and injury—road injury, poisoning due to alcoholic beverages, poisoning due to other ethanol and methanol poisoning, falls, fire, drowning, aspiration, occupational and machine injuries, suicide, assault and child abuse. (Of these

categories, alcohol was found to be a necessary cause of poisoning due to alcoholic beverages, poisoning due to other ethanol and methanol poisoning, and for aspiration and so was given an attributable fraction of 1.00 for these conditions.) These attributable fractions were then applied to the available Australian injury data, being death data from the Australian Bureau of Statistics (ABS) mortality unit's record data collection, 1979–97 and hospitalisation data from the Australian Institute of Health and Welfare's National Hospital Morbidity Database for the financial years 1993–94 to 1996–97. Population data were obtained from the ABS.

Some of the results of applying the attributable fractions to these deaths and hospitalisations data can be seen in the summary table below.

The attributable fractions methodology is widely used but has some problems. Shortly before the NISU report was released, the Australian Institute of Health & Welfare (AIHW) released a report entitled *Quantification of Drug-caused Mortality and Morbidity in Australia, 1998*. In the AIHW report, Bruno Ridolfo and Christopher Stevenson used more recent literature to recalculate some of English *et al.*'s fractions.

**Copies of the NISU report are available from RCIS, Tel: 08 8374 0970; Fax: 08 8374 0702. Inquiries about the RCIS report can be directed to Judy Carman at RCIS, Tel: 08 8374 0970; E-mail: judy.carman@nisu.flinders.edu.au** Details about obtaining a copy of the AIHW report prepared by Ridolfo and Stevenson are provided in the section *Something to Read* on page 18.

Application of attributable fractions to deaths and hospitalisations data, by gender

		Total Attributable Fraction	No. deaths	No. alcohol-attributed deaths	No. hospitalisations	No. alcohol-attributed hospitalisations
Motor Vehicle Accidents	Males	0.37	1240	459	16812	6220
	Females	0.18	561	101	9178	1652
Falls	Males	0.34	486	165	48966	16648
	Females	0.34	639	217	47041	15994
Drowning	Males	0.34	215	73	383	130
	Females	0.34	59	20	188	64
Fire and Flame	Males	0.44	76	33	1463	644
	Females	0.44	34	15	432	190
Aspiration	Males	1.00	42	42	321	321
	Females	1.00	23	23	254	254
Suicide	Males	0.12	2146	258	6965	836
	Females	0.08	577	46	10311	825
Assault	Males	0.47	191	90	12799	6016
	Females	0.47	90	42	3637	1709
Occupational & mechanical	Males	0.07	69	5	20983	1469
	Females	0.07	6	0	5410	379

\*Calculated by applying the total attributable fraction to the total number of cases.

## Our Admin Team: Chris and Stacey Wendt



Chris spends half of each week keeping the Centre's accounts and finances in order. The other half of the week is spent doing the same job for the National Centre for Education and Training in Addiction (NCETA) whose offices are located in the same building as the Research Centre. Chris has worked at NCETA for several years.



(Chris's daughter) Stacey has been acting as the Research Centre's receptionist since January 2000. We've recently been able to appoint Stacey on a permanent basis after she was the successful candidate in a University selection process. As well as being our 'public voice', Stacey undertakes many other tasks for us, including maintaining our library, editing our manuscripts, and livening us up with her bubbly personality and unflinching good humour.

*EDITOR'S NOTE: Along with much of the rest of the world, we've been watching with great interest, and considerable empathy, as South Africa endeavours to meet the challenges it faces in its post-Apartheid era. This interest prompted us to ask Malinda Steenkamp, an expatriate South African who joined our Research Centre three years ago, to provide us with her analysis of South Africa's injury problems. Malinda Steenkamp spent several years as an injury researcher in Cape Town, and continues to maintain connections with her previous research colleagues. In the following article, she clearly illustrates that the problem of injury is significant among the challenges South Africa is grappling with, particularly in the form of interpersonal violence.*

# Injury in South Africa

**Malinda Steenkamp**  
**Research Centre for Injury Studies**

South Africa continues to face many challenges in the post-apartheid era and injury is one of these. This brief article outlines the extent of the problem as allowed by limited data sources.

The country is about one-seventh the size of Australia, but has more than double the population—about 42 million. In 1999, population estimates indicated that 78% of the population was Black, 11% White, 9% 'Coloured' (i.e. of mixed White and Black descent) and 3% Indian.<sup>2</sup>

There is a lack of comprehensive national data on injury in South Africa. This is not a problem unique to this country—many high and low income countries are in the same boat.

Data on deaths among South Africans are collected and collated on a national level, but are not routinely reported by manner of death and external cause. Available deaths data do indicate that about 60,000 South Africans die each year because of injury<sup>3</sup> (compared with about 7,000-8,000 Australians per year from a population of about 19 million). Injury is the second leading cause of death—after circulatory diseases—and accounts for the largest proportion of potential years of life lost for those aged less than 65 years.<sup>4</sup> In 1994, injuries accounted for 19% of all deaths in South Africa.<sup>5</sup>

The most recent information on injury deaths in South Africa comes from the newly established National Injury Mortality Surveillance System (NIMSS).<sup>3</sup> NIMSS is currently functioning as a sentinel surveillance system and in 1999 it covered 10 mortuaries in five of the nine provinces. The first findings on 14,829 injury deaths—25% of all fatal injuries—indicated that 79% of those who died were male. Blacks constituted 69% of all cases, followed by Coloureds 17%, Whites 11% and Indians 3%. Most of the fatalities involved young and middle aged adults: 36% were aged 25-29 years and 37% were between 37 and 44 years. Interpersonal violence was the leading manner of death and accounted for 46% of all injury cases. This was followed by unintentional injury

(34%) and suicide (8%). However, for 12% the manner of death was undetermined. Of concern was that more than half of the 6,859 homicides were inflicted by firearms. Firearms and hanging each accounted for one-third of the 1,157 suicides. Of the unintentional injury, 77% were transport-related. (As a matter of interest, the total of 3,906 deaths due to firearms was greater than the total number of transport-related deaths.)<sup>3</sup>

It is a well-known fact that there are many more non-fatal injuries for each death due to injury. However, national morbidity data are seriously lacking in South Africa, with the exception of transport-related data. Most hospitals have discharge summaries of admitted cases, but there is no national reporting of these data. Data on emergency department (ED) presentations are only collected at a small number of, mostly, tertiary hospitals and there is no central collation of such data. Also, many of these systems are under threat because of funding cuts and lack of staff. The only other ED data available come from cross-sectional studies that vary in terms of

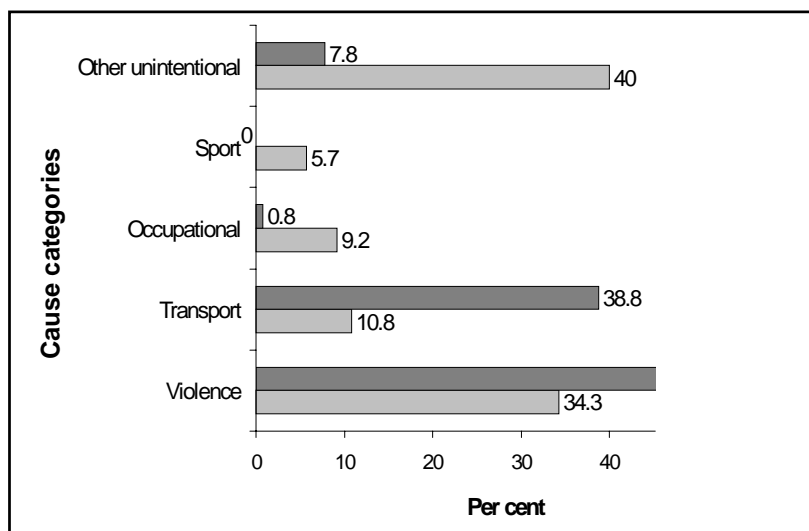
depth and coverage.

The most comprehensive picture of non-fatal injury in South Africa comes from two major regional cross-sectional trauma studies conducted in Cape Town and surrounding areas. These data date back to 1990 and 1992, but are presented here for their insight into injury profiles in South Africa.

The Cape Metropolitan Study (CMS) was a major cross-sectional trauma study that covered all treatment levels of both the public and private sectors in Cape Town. The study was done for 1990 and included fatal and non-fatal injuries. It covered a population of 2.517 million people.<sup>6</sup>

The CMS showed that nearly 250,000 people were treated as the result of injury incidents in Cape Town during 1990—about 1 in 10 of Cape Town's population. Of these, about 3,000 were fatal cases, which represented 1% of the total injury caseload.<sup>7</sup> Each injury death was associated with about 14 hospitalisations and 67 ED visits.<sup>8</sup> The major cause categories are shown in **Figure 1**, which

**Figure 1: Cause categories of injury; Cape Metropolitan Study 1990**



# Injury in South Africa

Continued from page 6

also shows the difference between causes of all injury cases and fatalities.

**Figure 1** clearly shows that violence was a major cause of all cases and deaths. A common perspective was that most of the violence was political in nature. The CMS data did not allow for distinguishing different types of interpersonal violence, but national data indicated that political violence represented between 11 and 14% of violence deaths in 1990-1993.<sup>7</sup> Cape Town had lower levels of political violence than the rest of the country and it is quite likely that the proportion of political violence was even lower in the CMS data.

Another cross-sectional study, the Rural Injury Surveillance Study (RISS), was conducted at 15 EDs surrounding Cape Town. It found that about 56,500 persons were treated for new injuries in 1992 at the participating EDs (source population = 899,000). Of these, 55% were due to interpersonal violence, 11% resulted from transport-related incidents, 3% from occupational injury, 3% from sport, with the rest due to other unintentional injury. As in CMS, no attempt was made to categorise violence into political or non-political violence, but the areas covered by the study traditionally had low levels of political activity at the time of the study.<sup>8</sup>

A recent estimate for national figures of non-fatal injuries was that around five million non-fatal cases accompanies the 60,000 injury deaths per annum. It was also estimated that 50-60% of these will present to health facilities.<sup>9</sup> Therefore, a promising development in this regard is the establishment of the National Non-fatal Injury Surveillance System. This will be a sentinel surveillance system of health

facilities. A one-month pilot study was conducted at two hospitals in early 2000—Cape Town and Durban (two South African metropolises). **Table 1** shows the cause of injury by facility.<sup>9</sup>

It is apparent that South Africa experiences large numbers of injuries each year and that violence is a prominent feature of these. Establishing trends in overall case counts and rates is problematic because data are limited in scope and coverage and time series data are scarce. The one obvious exception in this regard is data on transport-related events.

Transport authorities collect this information and data on road deaths go back to 1950. These data show that the annual death toll on South African roads has increased from about 1,000 in 1950 to more than 10,000 in 1994. Because of problems with population data it is problematic to determine trends in rates.

However, it is probably fair to assume that death rates on South African roads have increased. It is also quite likely that rates for other injuries have increased as well.

Injury remains a major challenge for South Africa. Part of this challenge is obtaining reliable time series data. The recent developments in regard to sentinel surveillance systems will go some way toward providing the data necessary for monitoring injury trends. However, the contribution of violence to injury is clear from available data. Prevention of violence is complex and needs to be addressed at various levels. It will not be easy, but actions to address violence—as well as other injuries—should not wait until better data become available.

**Malinda Steenkamp can be contacted on Tel: 08 8374 0970; E-mail: malinda.steenkamp@nisu.flinders.edu.au**

**Table 1: Cause of injury by facility, data for one month's ED presentations at each hospital**

Cause of injury	Hospital in Durban	Hospital in Cape Town
Interpersonal violence	269 (44.4%)	323 (64.2%)
Other unintentional injury	215 (35.5%)	111 (22.1%)
Transport-related injury	121 (20.0%)	67 (13.3%)
Suicide	1 (0.2%)	2 (0.4%)

## Injury surveillance at the Sydney Olympics

The Olympic Games held during October 2000 brought a huge influx of people into Sydney. To give you some idea of the scope of this invasion, by the start of the Games 11,300 athletes and 5,100 officials from 200 countries had arrived in the City; 400,000 people visited the Olympic park precinct daily; and for the Closing Ceremony, 110,000 spectators and thousands of athletes filled the Stadium while an estimated 1,000,000 gathered in the city centre and along harbour foreshores.<sup>10</sup>

The 2000 Olympics provided the impetus for the NSW Health Department to mobilise an extensive health surveillance system for the purpose of identifying unusual patterns of injury and disease inside Olympic venues and across Sydney. To support this undertaking, existing data collection systems were supplemented by new ones, including an Emergency Department Olympic Surveillance System (EDOSS), which involved over 45 staff in collecting data from 15 sentinel hospitals, 7 days per week for a period of 5 weeks. This information was relayed daily to the specially established Health Olympic Coordinating Centre which, by 11.30 each morning, had produced a *Health Status Report* containing a summary of the previous 24 hours; trend data; and highlights of any findings of interest.<sup>10</sup>

EDOSS set out to collect data on a designated group of conditions or symptoms: diarrhoea or vomiting, where the suspected cause was an infectious or chemical agent; pneumonia; influenza-like illness; pertussis; meningitis; acute viral hepatitis; febrile illness accompanied by a rash; illicit drug-related episodes; and injuries occurring outside of the home environment.<sup>11</sup> The latter category was by far the most frequently reported—Of 12,754 incidents recorded at sentinel hospitals during the period, 6,640 cases

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# Injury 2000 Conference Report

*The latest in the consistently successful series of national Injury prevention and control conferences was held in Canberra in November 2000. This edition of the Monitor features a few of the faces in the crowd that attended, as well as reports on selected aspects of the conference program.*



Beth Fuller (NSW Health), Amanda Croker (Queensland Health) and Ann Williamson (NSW Injury Risk Management Centre)



Amanda Croker (Qld Health), Rod McClure (Queensland Trauma Registry) and Fran McFadzen (Queensland Health)



Jenny Blitvich, University of Ballarat



Jane Elkington (Elkington & Associates) and James Harrison (Research Centre for Injury Studies)



Dale Hanson, Mackay Base Hospital, Qld



Jan Shield (Victims Referral & Assistance Service) and Jerry Moller (New Directions in Health and Safety)



Aleks Natora and Robyn Norton (Institute for International Health)



Malinda Steenkamp and Renate Kreisfeld (Research Centre for Injury Studies)



Voula Stathakis, Karen Ashby and Virginia Routley (Monash University Accident Research Centre)



# Injury 2000 Conference Report



Barbara Kennedy (Kidsafe NSW) and Sue Wicks (Kidsafe WA)



Ron Medford (Consumer Product Safety Commission, USA)



Alison Sewell and Paul Sayers, Commonwealth Department of Health and Aged Care



Edward Brentnall, Lyell McEwan Health Service, SA



Gayle O'Brien, Australian Competition & Consumer Commission



Tarun Weeramanthri (Territory Health Services)



Ian Farrar (Joint Coal Board, NSW)



Lawrence Lam (Institute for International Health, NSW)



Joan Ozanne-Smith (Monash University Accident Research Centre) and Brian Adams (ACC Injury Prevention, New Zealand)



Brian Adams (Workcover SA)



Cindy Shannon (Indigenous Health Program, University of Queensland) and Jerry Moller (New Directions in Health & Safety)



Lesley Day (Monash University Accident Research Centre) and John Langley (University of Otago, New Zealand)



Michael Resnick (University of Minnesota)



James Nixon, Elizabeth Miles and Rod Pitt (Queensland Injury Surveillance Unit)

## The fight against drowning

**Malinda Steenkamp**  
**Research Centre for Injury Studies**

The *Continuing Cooperation in the Fight Against Drowning* conference was held in Canberra on 22 November 2000. About 70 people attended this conference, which aimed to review the success of the *National Water Safety Plan* and to forge the way ahead for water safety over the coming 3-5 years.

The presentations on the day included a report on a study commissioned by the Royal Life Saving Society of Australia on behalf of the Australian Water Safety Council. Ann Williamson of the NSW Risk Management Research Centre reported that drowning is most common in NSW, Victoria and Queensland. (This is not surprising as these States have larger proportions of the population.) The highest drowning rates occurred in the NT overall and Tasmania for males in particular. Overall, drowning rates have decreased over the study period. Drowning risk is clearly associated with exposure to water-related hazards.

Rob Pitt of the Queensland Injury Surveillance Unit presented the results of a study on toddler drownings in domestic swimming pools in Queensland for 1992-2000. Since 1 April 1992—when pool fencing legislation was mandated in Queensland—116 children under the age of five have died after an immersion event in this State. Of these, 57 (49%) died as a consequence of falling into a domestic swimming pool or spa. Only eight of the pools involved were fully compliant with fencing requirements. The study also found that the current coronial system did not avail itself of the opportunity to examine the majority of deaths or to make recommendations for the majority of deaths that it did examine.

Brendon Ward, Project Manager of Water Safety New Zealand (WSNZ), reported on the official national database on drownings in New Zealand. DrownBase™ is a national database that records all drownings in New Zealand (around 150 each year). Its records go back to 1980. Data are obtained from

police reports to the coroner and from media releases and are utilised to target problematic drowning sites, activities and age groups.

There was also feedback from each State and Territory about regional progress in regard to water safety during the previous two years. A highlight was the presentation by Cathy Acock of *Victoria Alive* which outlined a multifaceted campaign to address drowning in Victoria. This campaign involved significant (financial) commitment from both the government and private organisations.

A reasonable portion of the day was spent in workshops to assess the effectiveness and currency of the National Water Safety Plan that has been in place since 1998. This involved looking at three specific topics—Water Safety Education; Water Safety Research; and Management of Aquatic Locations.

The last portion of the day was devoted to presentations on public awareness campaigns regarding water safety. These were: *Play it safe by the water*—a Victorian Water Safety Initiative; *Kellogg's SurfSafe Summer*—a national campaign by Surf Life Saving Australia; and *Pfizer Keep Watch & Playstation Swim & Survive*—a campaign of the Royal Life Saving Society Australia.

One concern expressed by some delegates related to fragmentation and duplication of initiatives and effort. The challenge for the future is therefore to build on existing initiatives and programs in a collaborative manner to ensure water safety of all Australians and visitors.

**For more information about WSNZ, see [www.watersafety.org.nz](http://www.watersafety.org.nz) Other useful and interesting websites are: [www.surfsafesummer.com.au](http://www.surfsafesummer.com.au); [www.swimandsurvive.com](http://www.swimandsurvive.com); and [www.wetwise.com](http://www.wetwise.com) For more information about the National Water Safety Plan, contact Robert Bradley, Convenor of the Australian Water Safety Council at Tel: 02 9181 5444.**

## Australian Injury Prevention Network

The Australian Injury Prevention Network chose *Injury 2000* as the occasion for electing a new Executive Committee to lead the organisation through the Year 2001. The outcome was as follows:

**Richard Franklin (President).** Richard, who has accepted the presidential reins from Rod McClure, will already be familiar to many readers, in particular those with an interest in farm safety. Richard works alongside Lyn Fragar at the Australian Agricultural Health Unit in Moree, NSW.



Richard Franklin

**Marilyn Lyford (Secretary).** Marilyn is the Health Promotion Coordinator of the WA Branch of the Royal Life Saving Society.

**Malinda Steenkamp (Treasurer).** A member of the RCIS research team, Malinda's involvement in a diverse range of injury-related research, and her regular contributions to the *Monitor*, have made her familiar to many in the injury field.

**Pam Albany.** Of course, everyone already knows Pam!—the NSW Health Department's Principal Policy Officer for Injury, and previous employee of RCIS, and the WA Health Department.

**James Harrison,** RCIS Director and long-term member of the AIPN Executive.

**Fran McFadzen** of Queensland Health's Central Public Health Unit in Rockhampton has had a long-term involvement in injury prevention and was a foundation member of the AIPN Executive.

**Aleks Natora** who works for the International Health Research Centre based at the University of Sydney. Alex is an ex-patriate South Australian who previously worked for Ron Somers in the SA Department of Human Services and spent a short time at RCIS.

**Jan Shield** works for Melbourne's Victims Referral and Assistance Service. Jan was previously a long-term employee of the Child Safety Centre at the Royal Children's Hospital in Melbourne.

AIPN also resolved to have formal representation of the interests of Indigenous people on its Executive Committee and is currently looking at ways of achieving this within the constraints of its Constitution. In the meantime, **Tim Agius**, who heads up the Indigenous Health Section of NSW Health, is acting in this capacity.

# Injury 2000 Conference Report

Several Aboriginal participants in the recent 4th National Injury Prevention Conference worked on the development of the following Declaration on Indigenous Injury Prevention. The Declaration's purpose was to highlight the Aboriginal participants' concerns regarding the lack of planning, at national and state levels, for injury prevention initiatives in Aboriginal communities. The Declaration further identified a number of key principles that health departments and other agencies should note when developing such planning endeavours.

Subsequent to the Conference, the Australian Injury Prevention Network put its weight behind the document and presented it to the Chair of the National Public Health Partnership (NPHP). The Declaration was considered by the NPHP's Aboriginal and Torres Strait Islander Working Group which has established a sub-committee to oversee the development of a National Strategic Plan for Indigenous Injury Prevention that is consistent with the Declaration. The sub-committee will have representation from Aboriginal Health Units as well as two members from the NPHP's Strategic Injury Prevention Partnership (SIPP)—Pam Albany of the NSW Health Department and James Harrison of the Research Centre for Injury Studies.

## Injury 2000 NCIPC Declaration on Indigenous Injury Prevention

November 2000 at the Injury 2000 Conference, Canberra.

Injury to Indigenous people in Australia has been shown to be three to ten times as common as to non-Indigenous people. Inadequate identification of Indigenous status in the major mortality and hospital collection and in road trauma statistics means that the published data severely under estimates the extent and nature of the problem.

Despite the significance of the problem there is no coherent and strategic approach to Indigenous injury prevention in Australia. Where injury has been clearly identified in Indigenous communities and information about the types of injury that occur, Indigenous peoples place injury as a high priority for prevention. Indigenous participants at the 4th National Injury prevention Conference and the Australian Injury Prevention Network are committed to injury prevention being given the same status as the current health and social priorities for Indigenous people.

The causes of Indigenous injury vary markedly from place to place and show different age distributions compared with non-Indigenous injuries. Programs targeted at non-Indigenous injury are likely to have a limited impact and benefit to Indigenous peoples.

### This conference recognises:

- That injury to Indigenous people is an important issue that has not received the attention and support it deserves.
- Indigenous people must be given a real opportunity to assess the importance of injury and injury prevention as a priority.

### This will require:

- The development of a strategic approach to the alarming rate of injury in the Indigenous Community
- Support for the proposed development of a National Indigenous Injury Prevention Strategy, which should include,
  - Readily accessible local data on Indigenous injury and its causes.
  - Practical information on possibilities for injury prevention and control.
  - Where injury is agreed to be a priority, support to develop injury prevention approaches that are integrated with overall health and wellbeing programs.
  - Programs focusing on Indigenous injury prevention should be based on genuine partnerships with Indigenous peoples, the development of trust among all participants and the development of injury prevention skills among Indigenous people.
  - Resources for injury prevention must be allocated in a way that permits the priorities for intervention to be set locally rather than being targeted by uniform national programs that may not meet the needs of many areas.
- There is a great need for improvement in the quality and relevance of Indigenous injury data. Nevertheless, the data that are available must form the basis for immediate action and development of better data should not delay the commencement of intervention programs. However, concurrent with intervention development, data on Indigenous injury should be improved to a standard that permits an accurate picture of injury among Indigenous peoples to be readily available in all States and Territories.
- Indigenous representation on the Executive of the Australian Injury Prevention Network.
- Commonwealth support for Indigenous representation on the Strategic Injury Prevention Partnership.
- That this declaration be forwarded by the president of the AIPN to the Chair of the National Public Health Partnership, Dr Andrew Wilson, cc Mr. Brian Corcoran, Department of Health and Aged Care. The purpose of this communication will be to request the matter of the development of a National Aboriginal and Torres Strait Islander Injury Prevention Strategy (NA&TSIIPS) be tabled at the next meeting of the Public Health Partnership, and that a Working Group of the Public Health Partnership Indigenous Sub Committee be established to develop the NA&TSIIPS. Representation on this group should also be inclusive of Indigenous Injury Prevention Program workers with expertise in this field, the SIPP Indigenous representative and persons who have expertise in the area of injury prevention.
- That the NA&TSIIPS be developed by September 2001 to ensure the agreed National Performance Indicator with regard to injury prevention is achieved.
- That a commitment is clearly stated in the Public Health Partnership National Injury Prevention Strategy which ensures the development of the NA&TSIIPS by September 2001 which also clearly identifies resources to ensure the implementation of its strategies, and presents the Australian Health Ministers Advisory Council (AMHAC) with the strategy in 2001.
- That injury prevention is linked to the development of the Revised National Aboriginal Health Strategy.

### An international perspective on consumer product safety

Joan Ozanne-Smith

Monash University Accident Research Centre

The November 2000 visit of Ron Medford to Australia as a keynote speaker at the 4<sup>th</sup> National Conference on Injury Prevention and Control highlighted a number of important issues in consumer product safety. In his address *Using technology to solve product safety hazards*, Ron described the functions of the Consumer Product Safety Commission (CPSC) and emphasized the importance of a systematic approach to product safety research.

The CPSC is an independent regulatory agency, established in 1973, with three politically appointed Commissioners. Its authority includes issuing standards, bans, warnings and recalls of defective products, collecting and disseminating injury data on consumer products, conducting research and providing comparative safety information.

In addition, companies must report potential product defects to the CPSC and it can levy civil and criminal penalties. Australia is positioned to achieve additional safety measures from among these functions if the recommendations of the 2000 *Product Safety Policy Review* discussion paper, prepared by the Treasury are adopted.

All consumer products are included within the CPSC's jurisdiction, except alcohol, tobacco, firearms, drugs and cosmetics (except for child resistant packaging), pesticides, food, cars, planes and other forms of public or commercial transportation.

The CPSC is required to defer to voluntary, rather than mandatory, standards if a voluntary standard exists that adequately addresses the risk and compliance with the standard is substantial. In order to regulate (mandate standards) a product must present an unreasonable risk of injury; it is technically feasible to modify the product to address the hazard; the costs and benefits bear a reasonable relationship; and the least burdensome alternative is selected that adequately addresses the risk.

The CPSC has multiple injury data sources, including the National Elec-

tronic Injury Surveillance System (NEISS), which provides timely, representative information on product related injuries presenting to more than 100 emergency departments. These are complemented by economic market data sources including an injury cost model, a product population model, published market studies, data from manufacturers and trade associations and the US Department of Commerce.

Project selection criteria for the CPSC include the frequency and severity of injuries, the vulnerability of populations, addressability of the problem, the cost/benefit ratio and the presence of hidden hazards. Ron Medford asserts that a successful product safety program relies on solid injury data, multidisciplinary staff, injury cost estimates, and an active research program.

Petitions currently before the CPSC include banning baby bath seats, regulating non-wood baseball bats, and regulating open flame flammability of mattresses. Regulations are pending for upholstered furniture, bed rails, baby walkers, and over the counter drugs and hydrocarbons. Pending voluntary standards of particular interest include gas-fired water heaters (flammable vapors), cooking ranges (fires), clothes dryers (fires), escalators (sidewall entrapment), and baby change tables.

Collaboration is proposed between Monash and Flinders Universities, the CPSC and other Australian and international research groups, to develop a systematic research framework for the optimisation of product safety and the consequent significant reduction of product related deaths and injuries. Such a research program would place Australia at the leading edge of product safety research worldwide, also providing opportunities to industry and government for the commercialisation of safe designs and new safety products.

**Joan Ozanne-Smith can be contacted on Tel: (03) 9905 1810; E-mail: joan.ozanne-smith@general.monash.edu.au**

Previous editions of the *Monitor* (12, 14 and 17) have reported on developments in relation to the draft International Classification of External Causes of Injury (ICECI) being developed by the WHO Working Group on Injury Surveillance Methods (WGISM). ICECI is a multi-axial code set, for use in a range of settings, to capture detailed information about aspects of injury circumstances—e.g. intent, mechanism, object/substance, place. As with most existing injury classifications, early drafts of the ICECI had not been evaluated in any formal way. During 1999, the WGISM evaluated the June 1999 draft of the ICECI. Testing involved a review of the ICECI by experts; field testing of the ICECI in emergency departments; and the coding of case scenarios using the ICECI. The case scenario testing was coordinated by the AIHW National Injury Surveillance Unit (NISU) in Australia and we report here on this part of the evaluation. (Other projects were organised by the Consumer Safety Institute in the Netherlands.)

The specific objective of the case scenario testing was to use a test set of 100 case summaries to measure criterion validity and inter-observer reliability among volunteers knowledgeable about health coding.

This study comprised the development of the test set, as well as the dissemination thereof together with the draft ICECI and instructions to volunteers. A 'gold standard' was compiled by a reference group. At the end of December 1999, a total of 27 organisations (39 individuals) had completed the testing and 32 coded test sets were received. Analysis consisted of qualitative examination of feedback and the coded test sets, as well as quantitative analysis of the data.

The ICECI was received favourably by participants in this study. Both the qualitative and quantitative analyses indicated that, in general, *Mechanism* and *Object/Substance* were the most problematic data elements. However, these data elements have the biggest range of codes and embody considerable conceptual complexity. In the testing described here, the coding of *Mechanism* and *Object/Substance* was further complicated by the possibility of providing more than one code for both data elements. This allowance reflects the reality that an

*Continued on page 13*

# Accidental poisoning of preschool children from non-medicinal substances

## Deaths

A recently published NISU study shows that poisoning of preschool children from non-medicinal substances is very rarely a cause of death in Australia. Over the period 1979-1997, 27 children aged 0-4 years died due to poisoning by non-medicinal substances—an average of less than two cases per year over the period. Many of the deaths were due to agricultural and horticultural chemicals (13 cases). In contrast, poisoning of preschool children is a much more substantial problem when defined in terms of hospital separations.

## Hospitalisations

Over the period 1993/94 to 1996/97, 3,896 pre-school children were hospitalised due to non-medicinal substances—an annual average of nearly 1,000 cases over the period. Although a common cause of admission to hospital for this age group, few cases require any surgical or other procedures and length of stay is almost always very short. This suggests that a high proportion of cases are admitted for observation following suspected ingestion of a harmful substance, rather than because of evidence of toxic effects.

Most of the poisonings resulting in hospital admission occurred at home (68%). However, for a quarter of cases no place of occurrence was specified.

Common poisoning agents included agricultural and horticultural chemicals (eg insecticides of organophosphate compounds and 'other and unspecified insecticides'); Petroleum fuels and cleaners; poisonous plants; corrosive and caustic substances (eg automatic dishwasher powder, oven cleaner, drain cleaner); and various types of cleaning substance. In the first year of life, the main type of substance involved in hospital admission due to poisoning from non-medicinals was foodstuffs and poisonous plants. Agricultural and horticultural chemicals and petroleum products and solvents were a more common cause amongst those aged 1-4 years.

## Town and country differences

An important finding of this study was the higher rate of hospitalisation for non-medicinal poisoning amongst preschoolers resident in the country, particularly from rodenticides and poisonous/toxic plants, but also from the other substances specified above. This is the first time that city/country differentials have been reported in the medical literature and it warrants further investi-

gation. It is unlikely that variations in hospital admission practises could explain these differentials.

All of the rural and remote area rates were significantly higher, statistically, than the capital city and other metropolitan centre rates. There were no statistically significant rate differences between rural and remote areas.

## Rodenticides—a common cause of poisoning

The finding that rodenticides were one of the most common agents of poisoning in preschoolers prompted a case study of hospital emergency department attendances resulting from such agents.

Among children aged 0-4 years, 356 cases of emergency department attendance for rodenticide poisoning were identified in the Injury Information Surveillance System (ISIS).\*

The place of poisoning was specified in 273 cases (77%). Most (85%) of these occurred in the child's own home or someone else's home: Almost a quarter occurred in the kitchen. In the home, the poisons were often located in a cupboard, including a cabinet or pantry or under the sink, (14%); behind, under or between furniture or fittings (7%); under white-good appliances—ie a fridge, dishwasher, oven, washing machine, or dryer (4%); on the floor (3%); or elsewhere.

The available information in ISIS indicated that three brands of rodenticide accounted for 61% of such attendances. Two of the brands, which are in small pellet form, accounted for 52% of attendances. Although the actual chemical composition of these products may have changed since the early 1990s, when the ISIS data were collected, the manner of use has not. They are designed to be placed in open bait stations. Although current packaging has warnings on the labels indicating that they should not be accessible to children, it is evident from the ISIS data that when this form of product is distributed in open bait stations by parents, children are able to gain access even when they are located in seemingly inaccessible places (eg under the fridge). The intended manner of distribution of the form of substance constitutes a hazardous practice.

*Editor's note: A number of prevention measures for rodenticide poisoning are discussed in the literature: The use of bittering agents (controversial due to limited data supporting the efficacy of aversive agents, and because it appears that children do not seem to have the same response as adults to bitter tastes); Wax block formulations have been suggested as a potential low*

*cost alternative to pellet formulations. The development of a child-resistant bait station could be a more preferable prevention option.*

**Copies of this report are available from RCIS, Tel: 08 8374 0970; Fax: 08 8374 0702. Inquiries about the study should be directed to Peter O'Connor, Tel: 08 8374 0970; E-mail: peter.oconnor@nisu.flinders.edu.au**

\* ISIS is a national collection of hospital emergency department attendance records derived from over 50 hospitals and medical centres over the period 1986 to mid 1994. ISIS does not provide a comprehensive coverage of all injuries presenting to hospitals in Australia during that time. Nonetheless, the collection is large (over 700,000 records) and can provide a good description of the circumstances leading to specific types of injury, as well as identify less common injury occurrences.

## ICECI Report

Continued from page 12

injury is often the result of a complex sequence of events, and the selection of one among several candidate 'underlying' mechanisms and objects/substances in a consistent manner is a complex task. Other data elements seemed to produce fewer problems and those identified were more focused on the detailed application of relevant codes. However, all lists of codes needed to be reviewed and expanded. One recurring comment was that more guidelines and examples were needed for all data elements.

The present findings concerning the June draft of the ICECI do not, of themselves, provide guidance concerning its performance in comparison with other systems for classifying external causes on injuries. The novel methods used here could be applied to other systems, and comparisons could then be made. As such, the methods presented here are steps towards producing evidence-based classifications.

Changes made to the ICECI between the June 1999 draft (the subject of this study) and the first released version were partly based on the findings of this study.

**Copies of the report are available from RCIS, Tel: 08 8374 0970; Fax: 08 8374 0702. Further inquiries can be directed to Malinda Steenkamp, Tel: 08 8374 0970; E-mail: malinda.steenkamp@nisu.flinders.edu.au**

# Injury Research Partnership Grants

During the recent *Injury 2000* Conference in Canberra, the Commonwealth Health Minister, Dr Wooldridge, announced funding of \$3.5 million for two research projects, each of which has successfully secured a substantial injection of funds from partner organisations.

Two NHMRC committees—the Strategic Research Development Committee and its Research Committee—initiated the Health Research Partnership Grants scheme in 1999. The scheme was intended to provide for multi-disciplinary partnerships to examine complex health problems. The intention was to encourage major research initiatives which

would harness the shared resources of federal government and private sectors.

Following extensive peer-review, the Health Research Partnerships in Injury Committee has identified the two projects described below.

The NHMRC will commit \$2.5 million to the research package, while another \$1 million is being allocated to one of the projects—*Prevention of Injuries in Older People*—by the Population Health Division of the Department of Health and Aged Care, under its Enhanced Primary Care Package.



## A research-based solution to the public health problem of injury



Rod McClure

A total of 37 partners will participate in a highly innovative attempt to develop and pilot a new model for responding to the problem of injury. The program will be supervised by Associate Professor Rod McClure of the University of Queensland.

According to McClure, over the last 15 years in Australia, injury research and surveillance units have made a considerable contribution to describing the nature and extent of the problem. Some efforts have also been successfully aimed at identifying interventions and evaluating them in research environments<sup>12</sup>. Interventions in simple system environments such as road transport are relatively well understood and, hence, successful. Injury inequalities across population sub-groups—eg young males, Indigenous people, low socioeconomic status<sup>13,14,15</sup>—arise out of complex systems.

Better understanding of these systems is needed. While we may often know *what works* to prevent injury we do not know *how to make it work* at the population health level. Contemporary injury research needs to develop new methodologies to achieve success in addressing this major public health issue.

In tackling this challenge, the *Partnership* will, over a five year period:

1. Use systematic reviews and basic research activity to develop the evidence base necessary for informing community injury intervention programs.
2. Develop a set of linked injury databases, throughout NSW, QLD and WA, to enable monitoring of prevention programs and adequate evaluation in terms of population health outcomes.
3. Develop a set of evidence-based guidelines for implementing cost-effective, population-level intervention programs in five priority injury areas: childhood falls, poisonings and drownings; young adults' risk-taking behaviour; workplace injury; falls in older persons; and injury among Indigenous people.
4. Develop a national capacity for translating injury intervention research initiatives into measurable gains in the injury-related health of the nation.

... And in achieving the above aims, the Partnership will be piloting a model that is comprehensive and multi-dimensional. The extensive fragmentation

*Continued on page 15*

## Prevention of injuries in older people

A team of seventeen partners, under the direction of Dr Stephen Lord of the University of New South Wales, has been successful in securing an NHMRC Partnership Grant for a proposal which aims to address the two most prevalent causes of injury in the older population—falls and transport accidents. The falls research component of the proposed program covers a range of related studies in reducing falls and related injury in older people. It will investigate the basic physiology and biomechanics of human balance and falls, and will develop safer footwear for older people. Studies of large populations will help predict people at risk of falls and injury and, thereby, yield practical screening tools for clinical use in Australia. Finally, evidence-based intervention trials will be conducted to reduce the incidence of falls and injury in hospital patients and at-risk groups.

The transport injury aspect of the Program aims to develop and validate an assessment screening tool for accurately identifying older drivers who are not able to drive safely, due to visual, cognitive or sensorimotor impairments.

**Stephen Lord can be contacted at the Prince of Wales Medical Research Institute, Tel: 02 9382 2721; E-mail: s.lord@unsw.edu.au**

# Research-based solution to the public health problem of injury

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of injury prevention and control activities in Australia is seen as being a major barrier to achieving real gains. The *Partnership* points to the absence of a national infrastructure for adequately monitoring and evaluating prevention programs; and a lack of integration across the prevention, acute care, and rehabilitation elements of the continuum as examples of this fragmentation. Some key elements of an appropriate response are identified as:

- a properly formed and functioning partnership;
- a need for co-ordinating basic—and

rigorous—research projects so that they can form the basis for intervening at the population level; and

- the need for a research-based solution to span the spectrum from *problem* to *what works* to *how to make it work*, to *proper implementation and evaluation*.

At the very heart of this innovative undertaking is the challenge of making a large partnership work successfully. Overcoming the fragmentation which exists in this field is predicated on bringing together somewhat disparate groups which often operate under different

paradigms, don't speak the same language, and don't necessarily recognise that they have common interests.

Considerable thought has, therefore, gone into structuring the management of the *Partnership*. The underlying operational structure recognises that long-term success will be dependent on its capacity to deliver to all partners the benefits that they are looking for.

**Inquiries about the program can be directed to Rod McClure, Tel: 07 3240 5818; Fax: 07 3291 4874; E-mail: r.mcclure@spmed.uq.edu.au**

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## NHMRC funds Central Australian injury prevention project



The NHMRC recently announced the final successful candidate for one of its Translational Project Grants in Injury (the first 3 were listed in *Monitor* 20).

Injury due to self-harm or interpersonal violence is of major public health significance in the Central Australian region. Injury is the second most common cause of death in the Northern Territory and is the greatest single cause of excess deaths and years of potential life lost. The Northern Territory injury death rate is the highest in Australia. Injury is the leading cause of death for Aboriginal people between the ages of 1 and 34 years. Injury is the leading cause of hospital admission in Alice Springs for men aged 15-44 and for women aged 30-44 (ie even higher than obstetric admissions).<sup>16</sup> An analysis of the types of injury relating to hospital admissions indicates that the vast majority of the injury is due to interpersonal violence. 34% of Aboriginal injury deaths are attributable to homicide.

Against this background, Tangentyere Community Council has been prominent in attempting to reduce the impact of problems arising from self-harm and interpersonal violence in urban and remote Central Australia through a broad range of community development programs. Tangentyere is a town council which is controlled by the Aboriginal community of Alice Springs.

Tangentyere Council's primary interventions are the *Night Patrol and Wardens Programs (NPWPs)*. These programs are active in responding to domestic violence and substance abuse issues in 17 town camps of Alice Springs and 18 remote communities within a 600 km radius of Alice Springs. The *Night Patrol* provides an emergency response to domestic violence and self-harm situations. Most interventions of the *Night Patrol* are of the emergency or 'crisis' mode. The daytime-operating *Wardens Program* in Alice Springs provides a number of non-emergency functions such as referral of clients to appropriate agencies and the 'return to country' program.

Tangentyere also provides technical support to a *Remote Area Night Patrol* program. Two of these communities

(Yuendumu and Ali Curung) are currently operating these programs with varying degrees of success. Consultations with them have indicated that the programs have been sporadically successful in reducing injury rates, hospitalisation and engagement with the criminal justice system. However, detailed evaluation studies of the program's effect on injury prevention have not as yet been conducted. Program managers and agency representatives indicate this poor evidence base contributes to chronic under resourcing of programs by government and funding agencies.

The NHMRC funding will enable Tangentyere to enhance the effectiveness of current initiatives by drawing on the expertise of the Centre for Remote Health—also in Alice Springs—and our own Research Centre for Injury Studies here in Adelaide.

In the first instance, the collaboration will endeavour to address current knowledge gaps concerning the epidemiology of injury in the Central Australian context. It will also undertake an evaluation of the *Night Patrol and Wardens Programs*. Findings from the epidemiological research and the program evaluations will subsequently provide the basis for Tangentyere and community groups, with the assistance of the research team, to identify priority interventions.

The underlying approach for the project will be a focus on inter-agency collaboration, community participation and the generation of practical benefits to the community.

**The principal investigators for the project are John Wakerman of the Centre for Remote Health; William Tilmouth of Tangentyere Community Council; and James Harrison of the Research Centre for Injury Studies.**

**For further information contact John Wakerman or John Grundy, Tel: 08 8951 4700; E-mail: john.wakerman@flinders.edu.au or James Harrison, Tel: 08 8374 0970; E-mail: james.harrison@nisu.flinders.edu.au**

# Queensland focuses on injury outcomes

Injury is recognised as being a major contributor to the burden of disease in Queensland and reducing its burden is a State priority identified in Queensland Health's *Strategic Directions 2000-2010* and the accompanying *Strategic Plan*. Queensland Health has taken things a step further by releasing a *Health Outcomes Plan for Injury Prevention and Control 2000-2004*. This plan, which assembles the evidence base for strategies across the spectrum of prevention, trauma management, and rehabilitation, is intended to guide the procurement and delivery of health services. The plan has as its key outcome 'reducing the rate of death and disability from injury and poisoning in the whole population', with a particular focus on at-risk populations, including Aboriginal and Torres Strait Islander People; rural communities; young males; and people from socio-economic disadvantaged communities. The plan will have as its key performance indicators, reductions in the State's age-standardised mortality rate and rate of hospital separations for injury and poisoning. The specific indicators will include the following:

## **Injury prevention:**

- Intersectoral strategic management of injury as measured by joint ventures with academic institutions established; Appropriate data available for program planning and evaluation, as measured by Queensland Injury Surveillance Unit sentinel sites in regional, rural and remote emergency departments; Establishing Data linkages in place with intersectoral partners; Having the Queensland Trauma Registry fully operational in all level 4, 5 and 6 emergency departments and having hospital admissions related to injury accurately coded using International Classification of Diseases version 10 (ICD-10); Unique patient identifier implemented.
- Reduction in deaths and disability due to falls in older people, toddler drowning, burns and scalds, poisoning and envenomation and intentional self harm (suicide) as measured by: the Proportion of domestic pools with approved fences, proportion of houses with smoke detectors and with hot water tempering devices; trends in emergency presentations through Queensland Injury Surveillance Unit data.
- Reduction in deaths and disability due to transport, workplace, sport and recreation and water-related injury, child abuse, elder abuse and domestic violence, assault and homicide, falls in children, and lack of home, farm and consumer safety as measured by: the establishment of strategic action groups within the Queensland Injury Prevention and Control Advisory Council; Death and hospital separation rates for transport-related injury; annual rates of spinal cord and brain injury; trends in emergency presentations through Queensland Injury Surveillance Unit data
- Reduction in alcohol-related injury in selected populations as measured by: the Proportion of Aboriginal and Torres Strait Islander people with harmful alcohol consumption.

## **Trauma management:**

Optimal trauma management for injured and poisoned individuals will be measured by indicators such as Queensland Trauma Registry information on time thresholds, triaging and retrieval, adverse events, etc; Time taken for insurer involvement following injury of individual and for referral to rehabilitation by GPs; The use of health surveys to determine the proportion

of Queenslanders with cardio-pulmonary resuscitation and first aid training and the proportion of older people and those in rural and remote locations carrying communication alert devices; the number of rural and remote communities that have been trained using the *Pre-Hospital Trauma Life Support Program*; the frequency and accessibility of training for health professionals in emergency approaches; and benchmark information available through a National Trauma Registry.

## **Rehabilitation:**

Optimal rehabilitation for injured individuals as measured by such things as the successful implementation of a statewide approach for rehabilitation services in Queensland; the use of individualised rehabilitation plans, discharge plans and case management; frequency and accessibility of training for health professionals; the number of trials of new rehabilitation models in rural and Indigenous communities; the development of guidelines for high-cost interventions.

**Queensland health has released extensive documentation about its *Health Outcomes Plan* including a summary document outlining the main strategies in an easily readable format, and a background paper providing the supporting evidence or rationale for each strategy. These documents, and future updates to them, are published on the Queensland Health website: [www.health.qld.gov.au/hop/injury\\_cp.htm](http://www.health.qld.gov.au/hop/injury_cp.htm)**

## Editor's Note

The *Injury Issues Monitor* is the journal of the Research Centre for Injury Studies at the Flinders University of South Australia. The Centre incorporates the National Injury Surveillance Unit (NISU).

Letters to the Editor are welcome.  
Editor: Renate Kreisfeld

Mark Oliphant Building, Laffer Drive, Bedford Park,  
SA 5042, Tel: 08 8374 0970; Fax: 08 8374 0702;  
E-mail: [renate.kreisfeld@nisu.flinders.edu.au](mailto:renate.kreisfeld@nisu.flinders.edu.au)



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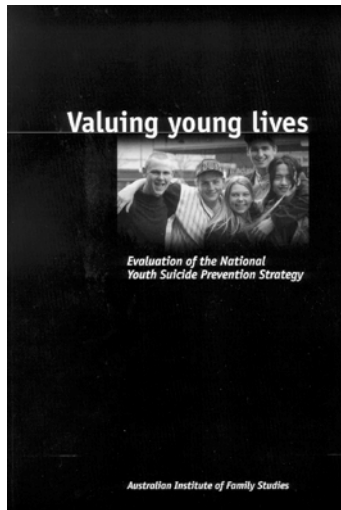
Commonwealth Department of  
Health and  
Aged Care

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# Something to read ...?

## Valuing young lives



*Valuing Young Lives* reports on an evaluation of the National Youth Suicide Prevention Strategy undertaken by the Australian Institute of Family Studies. The report provides an overview of the Strategy, which ran from 1995 to 1999, along with what it achieved, and what was learned from the Strategy as a whole. The report describes administration, policy context, conceptual basis and includes a description of activities within each of the main approaches adopted by the Strategy. It also presents the evaluation methodology and a summary of major achievements and good practice findings.

Copies of the report can be downloaded from [www.aifs.org.au](http://www.aifs.org.au). Printed copies are also available, free of charge from the Australian Institute of Family Studies, Tel: 03 9214 7888; Fax: 03 9214 7839; E-mail: [chriss@aifs.org.au](mailto:chriss@aifs.org.au)

## Violence in Indigenous communities

University of Queensland researchers have prepared the first comprehensive report on Indigenous violence in Australia.

The report, entitled *Violence in Indigenous Communities*, is based on a detailed examination of literature and 100 interviews with representatives of Aboriginal organisations across Australia. It reveals that Indigenous people are eight times more likely to be homicide victims than others and that Indigenous women are 45 times more likely than non-Indigenous women to be victims of domestic violence. It also found that some 45% of Indigenous people say they

believe family violence is a common problem.

Copies of the report, which was prepared with funding from the Commonwealth government, can be downloaded from the University of Queensland's website: [www.uq.edu.au/news](http://www.uq.edu.au/news)

For more information about the project, contact Associate Professor Paul Memmott, Tel: 07 3365 3660, or Shirley Glaister, Tel: 07 3365 2339.

## Analysis of drowning in Australia and pilot analysis of near-drowning in NSW



Commissioned by the Royal Life Saving Society Australia on behalf of the Australian Water Safety Council, this study was an attempt to undertake an analysis of the patterns of occurrence of drowning in Australia and near-drowning in NSW over the period 1992 to 1998 using existing data sources. The drowning analysis used ABS deaths data for Australia. Information on near-drowning was derived from NSW hospital in-patient data. The analysis looked primarily at the frequency of the event, age and gender specific rates, and age-adjusted death and hospitalisation rates. There was also a focus on changes over the period of study, age and gender related outcomes, the influence of the activity at the time, the location of the event, the time of day and year, the involvement of drugs and alcohol and occupation.

Printed copies are available at a cost of \$20.00 from the Royal Life Saving Society of Australia, PO Box 525, Drummoyne NSW 1470; Tel: 02 9181 5444, extension 10; E-mail: [info@rlssa.org.au](mailto:info@rlssa.org.au)

## Youth suicide in WA involving cannabis and other drugs

The TVW Telethon Institute for Child Health Research and WA Drug Abuse Strategy Office report on the contributory effects of alcohol, Cannabis and other illicit drugs in suicides involving young West Australians. The research confirms that expanded universal and selective programs are likely to have a demonstrable impact on preventing the early onset of drug use amongst young people. Given the high prevalence of hazardous levels of alcohol and cannabis use among younger age groups these preventive measures have significant potential to reduce the overall population rates of fatal and non-fatal suicidal behaviours. Such programs have been shown to be effective in reducing the likelihood of progression to lifelong patterns of drug use and in limiting the extent to which 'gateway' drugs such as tobacco, alcohol and cannabis contribute to the use of other more harmful drugs.

The report can be downloaded, in *pdf* format, from the publications section of the WADASO website: [www.wa.gov.au/drugwestaus/core.html](http://www.wa.gov.au/drugwestaus/core.html)

Further information about the study is available from Sven Silburn—one of the Report's co-authors—at the Division for Psychosocial Research, TVW Telethon Institute for Child Health Research & Department of Paediatrics, University of Western Australia, PO Box 855, West Perth, WA 6872; Fax: 08 9489 7700; Tel: 08 9489 7711

## Child deaths and injuries in driveways

This recently published report was prepared for the Motor Accidents Authority (MAA) of NSW by well-known transport safety consultant, Dr Michael Henderson. The report is a response to recommendations made by the MAA's Child Death Review Team which, in its 1998/99 annual report on the Child Death Register in NSW, drew attention to the deaths of 17 children who had died as a result of having been reversed over by motor vehicles on private driveways between January 1996 and June 1999. Henderson's report includes a selective review of the relevant literature, together with an examination of available Australian data, and discusses a range of possible countermeasures.

## Something to read ...?

The report can be downloaded, in *pdf* format, from [www.maa.nsw.gov.au/professionals/resources/](http://www.maa.nsw.gov.au/professionals/resources/) by selecting 'publications-road safety'. Printed copies are also available, free of charge, from the Motor Accidents Authority, Tel: 02 8267 1973; Fax 1300 137 707; E-mail: [ahall@maa.nsw.gov.au](mailto:ahall@maa.nsw.gov.au)

### League table of child injury deaths in rich countries



The United Nations Children's Fund (UNICEF) recently released a 28 page report—the second in a series designed to monitor the performance of industrialised nations in meeting the needs of their children. Prepared by the Innocenti Research Centre, UNICEF's research arm, the report observes that, in every single industrialised country, injury has now become the leading killer of children between the ages of 1 and 14. Taken together, traffic accidents, intentional injuries, drownings, falls, fires, poisonings and other accidents kill more than 20,000 children every year throughout the OECD. Despite these statistics, and the rising worries of parents everywhere, the likelihood of a child dying from intentional or unintentional injury is small and

becoming smaller. For a child born into the developed world today, the chances of death by injury before the age of 15 are approximately 1 in 750—less than half the level of 30 years ago. The likelihood of death from abuse or intentional harm is smaller still—less than 1 in 5,000. On the roads of the industrialised world, child deaths have been declining steadily for more than two decades.

The publication can be downloaded, in *pdf* format, from the UNICEF website: [www.unicef-icdc.org/publications/index.html](http://www.unicef-icdc.org/publications/index.html) Printed copies are also available at a cost of US\$12.00. To order, you can send a Fax: +44 1438 748844; or E-mail: [orders@earthprint.co.uk](mailto:orders@earthprint.co.uk)

### Quantification of drug-caused mortality and morbidity in Australia, 1998

This publication written by Bruno Ridolfo and Christopher Stevenson of the Australian Institute of Health & Welfare provides a comprehensive estimate of deaths and hospital separations caused by tobacco, alcohol and illicit drugs. The report presents revised aetiological fraction estimates attributing deaths and hospital separations from each of a range of specific illnesses and injuries to tobacco, alcohol and illicit drugs. It also presents estimates of 1998 deaths and potential years of life lost and 1997-98 hospital separations and patient days attributable to each of these drugs based on the revised fractions. (Readers with an interest in this publication should also refer to the article *Injury burden attributable to alcohol* on page 5.)

A free copy of this publication can be downloaded from the AIHW website: [www.aihw.gov.au](http://www.aihw.gov.au) Printed copies can also be purchased at a cost of \$18.00 from Ausinfo, Tel: 132 447 (toll free).

## Injury surveillance at the Sydney Olympics

Continued from page 7

presented as the result of having sustained an injury while outside the home environment. Among the injury issues identified were glass-related injuries and foot-propelled scooters.<sup>10</sup> The timeliness of the reporting made quick prevention responses possible—eg introducing a requirement that only drinks in plastic containers be sold at large entertainment venues to reduce the likelihood of glass-related injuries, and placing a ban on scooters in Olympic sites.

As a result of this experience, the NSW Health Department is currently exploring opportunities for on-going Emergency Department surveillance.<sup>10</sup>

EDOSS is an example of what can be achieved by public health surveillance when it is strongly backed by commitment and resources.

**Further details about the planning and results of the health surveillance exercise can be found in the *NSW Public Health Bulletin* which can be downloaded, in *pdf* format, from the NSW Health Department's Website: [www.health.nsw.gov.au/public-health/phb/phb.html](http://www.health.nsw.gov.au/public-health/phb/phb.html) Further information about future injury surveillance plans in NSW is obtainable from Pam Albany in the NSW Health Department's Injury Prevention Policy Unit, Tel: 02 9391 9679; E-mail: [palba@doh.health.nsw.gov.au](mailto:palba@doh.health.nsw.gov.au)**

## Diary

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

### National Centre for Classification in Health 7th Biennial Conference

1-3 April 2001  
Sydney

Contact: NCCH Conference, Tel: +61 2 9351 9461; Fax: +61 2 9351 9603; E-mail: [T.Stanhope@cchs.usyd.edu.au](mailto:T.Stanhope@cchs.usyd.edu.au) Website: [www.cchs.usyd.edu.au/ncch](http://www.cchs.usyd.edu.au/ncch)

### Suicide Prevention Australia's 8th National Conference

7-9 April 2001  
Sydney

Contact: Conference Secretariat, Tel: 02 9211

1788; Fax: 029211 0392; E-mail: [conference@suicidepreventionaust.org](mailto:conference@suicidepreventionaust.org)  
Website: [www.suicidepreventionaust.org](http://www.suicidepreventionaust.org)

### Best Practices in Drug & Alcohol Programs 2001

10-12 April 2001

Gold Coast, Queensland

Contact: Australia-Australasia Conference Services, Tel: 07 4945 7122; Fax: 07 4945

7224; E-mail: icsa2@bigpond.com.au

## **Life Journeys: National Conference and Expo**

28 April to 2 May 2001

Adelaide

Contact: Secretariat, Life Journeys Conference, Tel: 03 9388 0555; Fax: 03 9388 2086; E-mail: hisa@hisa.org.au Website: [www.life-journey.net](http://www.life-journey.net)

## **Safety in Action 2001**

1-3 May 2001

Melbourne

Contact: Conference organiser, Tel: 03 9654 7773; Fax: 03 9654 5596; E-mail: safety@aec.net.au Website: [www.aec.net.au/safety2000.htm](http://www.aec.net.au/safety2000.htm)

## **10th International Conference on Safe Communities**

21-23 May 2001

Anchorage, Alaska, USA

Contact: Diana Hudson, Tel: +1 907 929 3939; Fax: +1 907 929 3940; E-mail: diana\_hudson@hotmail.com Website: [www.alaska-ipc.org](http://www.alaska-ipc.org)

## **Diversity in Health: Sharing Global Perspectives**

28-30 May 2001

Sydney

Contact: Diversity in Health: Sharing Global Perspectives Conference, Tel: 02 9280 0577; Fax: 02 9280 0533; E-mail: diversity@pharmaevents.com.au

## **The Australasian Association for Quality in Healthcare 12th Annual Conference**

7-8 June 2001

Melbourne

Contact: Conference Organisers, Critical Care Education Services Pty Ltd, Tel/Fax: 03 9390 8011; Free call: 1800 077 799; E-mail: info@criticalcare.edu.au Website: [www.sci.usq.edu.au/aaqhc](http://www.sci.usq.edu.au/aaqhc)

## **Finishing School for Systematic Reviews**

13-14 June 2001

Melbourne

Contact Julie Hume, Australasian Cochrane Centre, Monash Institute of Public Health, Tel: +61 3 9594 7530; Fax: +61 3 9594 7554; E-mail: cochrane@med.monash.edu.au

## **2nd Annual Meeting for Australasian Contributors to the Cochrane Collaboration**

14-15 June 2001

Melbourne

Contact: Julie Hume, Australasian Cochrane Centre, Monash Institute of Public Health, Tel: +61 3 9594 7530; Fax: +61 3 9594 7554; E-mail: cochrane@med.monash.edu.au Website: [www.cochrane.org.au](http://www.cochrane.org.au)

## **4th National Outlook Symposium of Crime: New Crimes or New Responses**

21-22 June 2001

Canberra

Contact: Conference Co-ordinators, Tel: 02 6292 9000; Fax: 02 6292 9002; E-mail: conference@netinfo.com.au Website: [www.aic.gov.au](http://www.aic.gov.au)

## **International Health Outcomes Conference 2001**

27-28 June 2001

Canberra

Contact: Jan Sansoni or Lorna Tilley, Australian Health Outcomes Collaboration, Tel: +61 2 6205 0869; Fax: +61 2 6205 2037; E-mail: jan.sansoni@act.gov.au OR jansan@atrx.net.au Website: [www.health.act.gov.au/epidem/ahoc.html](http://www.health.act.gov.au/epidem/ahoc.html)

## **9th International Congress of Toxicology**

8-12 July 2001

Brisbane

Contact: Intermedia Convention and Event management, Tel: +61 7 3858 5496; Fax: +61 7 3858 5511; E-mail: ictix2001@im.com.au Website: [www.uq.edu.au/ICT9/](http://www.uq.edu.au/ICT9/)

## **SWAN IX Trauma Conference**

3-4 August 2001

Sydney

Deadline for abstracts: 30 April 2001. Contact: Thelma Allen, Liverpool Health Service, Tel: +61 2 9828 3927/8; E-mail: thelma.allen@swhs.nsw.gov.au Website: [www.swhs.nsw.gov.au/livtrauma](http://www.swhs.nsw.gov.au/livtrauma)

## **2nd International Medical Rescue Conference**

20-22 August 2001

Gold Coast, Queensland

Deadline for abstracts: 1 May 2001. Contact: ILS Conference, c/- Surf Life Saving Australia, Tel: +61 2 9597 5588; Fax: +61 2 9599 4809; E-Mail: ilsconf@slsa.asn.au Website: [www.slsa.asn.au](http://www.slsa.asn.au)

## **4th Nordic Safe Community Conference**

21-24 August 2001

Denmark

Contact: WHO Collaborating Centre on Community Safety Promotion, Karolinska Institutet, Department of Public Health Sciences, Division of Social Medicine, SE-171 76, Stockholm, Sweden; Tel: +46 8 517 779 48; E-mail: moa.sundstrom@soc.med.sll.se

## **National Speed and Road Safety Conference**

23-24 August 2001

Adelaide

Contact: Plevin and Associates Pty Ltd, Tel: 08 8379 8222; Fax: 08 8379 8177; E-mail: speed@plevin.on.net Website: [www.camtech.net.au/~plevin/Speed](http://www.camtech.net.au/~plevin/Speed)

## **The Character, Impact and Prevention of Crime in Regional Australia**

2-3 August 2001

Townsville, Queensland

Contact: Marianne James, Australian Institute of Criminology, Tel: 02 6260 9242; Fax: 02 6260 9201; E-mail: marianne.james@aic.gov.au Website: [www.aic.gov.au](http://www.aic.gov.au)

## **2001 National Indigenous Women's Health Conference**

8-10 August 2001

Brisbane

Contact: ICSA, Tel: 07 4945 7122; Fax: 07 4945 7224; E-mail: icsa2@bigpond.com.au

## **15th Annual California Conference on Childhood Injury Control**

4-7 September 2001

San Diego, California, USA

Contact: David Lawrence, California Center for Childhood Injury Prevention, San Diego State University, Tel: +1 619 594 3691; Fax: +1 619 594 1995; E-mail: vboson@project.sdsu.edu Website: [www.cccip.org](http://www.cccip.org)

## **7th Indo-Pacific Congress on Legal Medicine and Forensic Sciences**

16-21 September 2001

Melbourne

Contact: Congress Secretariat, C/- National Institute of Forensic Science, Tel: +61 3 9459 4299; Fax: +61 3 9457 3622; E-mail: inpalms@nifs.com.au Website: [www.vifp.monash.edu.au/inpalms2001/](http://www.vifp.monash.edu.au/inpalms2001/)

## **1st Asia Pacific Forum on Quality Improvement in Health Care**

19-21 September 2001

Sydney

Contact: Julie Goodrick, Commonwealth Department of Health and Aged Care, GPO Box 9848, Canberra 2601; Fax: +61 2 6289 8470; E-mail: julie.goodrick@health.gov.au Website: [www.quality.bmjpg.comXXI](http://www.quality.bmjpg.comXXI)

## **Congress of the International Association for Suicide Prevention**

22-26 September 2001

Chenna, India

Contact: Congress Secretariat, Tel: +91 44 4470312; Fax: +91 44 4473611; E-mail: info@iasp2001.org Website: [www.iasp2001.org](http://www.iasp2001.org)

## **33rd Public Health Association of Australia Annual Conference**

23-26 September 2001

Sydney

Contact: Conference Secretariat, Tel: 02 6285 2373; Fax: 02 6282 5438; E-mail: conference@phaa.net.au Website: [www.phaa.net.au](http://www.phaa.net.au)

## **45th Annual Conference of the Association for the Advancement of Automotive Medicine (AAAM)**

24-26 September 2001

San Antonio, Texas, USA

Contact: AAAM, 2340 Des Plaines Avenue, Suite 106, Des Plaines, Illinois 60018, USA  
Tel: +1 847 390 8927; Fax: +1 847 390 9962  
E-mail: AAAM1@aol.com Website: [www.carcrash.org](http://www.carcrash.org)

## 1st WHO Safe Community Conference on Cost Calculation and Cost-effectiveness in Injury Prevention and Safety Promotion

30 September to 3 October 2001

Viborg County, Denmark

Contact: Viborg Amt, WHO Safe Community Conference 2001, Tel: +45 8727 1987; Fax: +45 8660 2311; E-Mail: [ukhkk@vibamt.dk](mailto:ukhkk@vibamt.dk)  
Website: [www.vibamt.dk/conference2001](http://www.vibamt.dk/conference2001)

## Australasian College for Emergency Medicine 18th Scientific Meeting

30 September to 4 October 2001

Hobart

Deadline for abstracts: 31 May 2001.  
Contact: Penny Archer or Ben Thiessen, Conference Design Pty Ltd, Tel: 03 6224 3773; Fax: 03 6224 3774; E-mail: [mail@cdesign.com.au](mailto:mail@cdesign.com.au)

Website: [www.cdesign.com.au/acem2001](http://www.cdesign.com.au/acem2001)

## Australian Rehabilitation and Assistive Technology Association Conference 2001

2-4 October 2001

Brisbane

Contact: ARATA 2001 Conference Secretariat, Tel: 07 3858 5530; Fax: 07 3858 5510; E-mail: [arata2001@im.com.au](mailto:arata2001@im.com.au)  
Website: [www.arata.org.au](http://www.arata.org.au)

## 9th International Cochrane Colloquium

9-13 October 2001

Lyon, France

Deadline for abstracts: 30 April 2001

Contact: Bertrand Favre, 9th International Cochrane Colloquium, Tel: +33 4 72 77 45 50; Fax: +33 4 72 77 45 56; E-mail: [receptif@package.fr](mailto:receptif@package.fr)

## Road Safety Research, Policing & Education Conference

26-28 November 2001

Brisbane

Deadline for abstracts: 1 July 2000.

Contact: Road Safety 2000 Secretariat, C/- Intermedia Convention & Event Management, Tel: +61 7 3858 5554; Fax: +61 7 3858 5510; E-mail: [rs2000@im.com.au](mailto:rs2000@im.com.au)

## 37th Annual Conference of the Ergonomics Society of Australia Inc.

28-30 November 2001

Sydney

Contact: International Conferences & Events (ICE) Australia Pty Ltd, Tel: 02 9544 9134; Fax: 02 9522 4447; E-mail: [ergnomics@iceaustralia.com](mailto:ergnomics@iceaustralia.com)  
Website: [www.ergonomics.org.au](http://www.ergonomics.org.au)

## 6th World Conference on Injury Prevention and Control

12-15 May 2002

Montreal, Quebec, Canada

Contact: 511, place d'Armes, #600, Montreal QC H2Y 2W7, Canada; Tel: 514 848 1133; Fax: 514 288 6469; E-mail: [trauma@coplanor.qc.ca](mailto:trauma@coplanor.qc.ca)  
Website: [www.trauma2002.com/](http://www.trauma2002.com/)

## Footnotes

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