

In this issue ...

- 1 Injury hospitalisations
- 1 Next national injury conference announcement
- 1 New on the RCIS Website
- 3 Report from Montreal
- 4 Charter on people's right to safety
- 4 7th World Injury Conference
- 5 AIPN needs you!
- 6 Towards better injury indicators
- 7 Update on driveway runovers
- 7 Australia's Health 2002
- 8 Spinal cord injury 1999-00
- 8 Hospitalisation due to traumatic brain injury
- 9 Near drownings
- 9 NSW drowning prevention initiatives
- 11 Australian beach hazards
- 12 Churchill fellowships for injury
- 14 In the journals: recent Australian injury research
- 15 Something to read
- 16 Diary

Overview of Injury Hospitalisation

NISU has just published an overview report of Australian hospital separations (hospitalisations) due to injury and poisoning. The report focuses mainly on data for the financial year 1998–99.

We report here on some of the key findings of the report, but first some technical details:

- 'Separations' are not equivalent to newly incident cases that result in hospitalisation. This is because some incident cases result in more than one separation.
- It should be noted that for 1998–99, NSW, Victoria, Northern Territory and the ACT coded data according to the 10th version of the *International Classification of Diseases—Australian Modification*. The remaining four jurisdictions were still using the 9th version.

Main findings

In 1998–99, there were 403,724 hospital separations due to injury and poisoning. These cases made up 7% of all

hospital separations for this year.

Age and sex

Females made up 42.5% of injury hospitalisations (n=171,774). The male to female rate ratio, based on age-standardised separation rates, was 1.5:1.

For both sexes, age-specific hospital separation rates increased from birth to the 20–24 year age group and declined thereafter until about age 50 years for males and 40 years for females. In people aged 65 years and above, rates in both genders increased exponentially reaching maximum rates in those aged 85+ years.

Major causes of injury

Using a set of categories defined by RCIS, Falls and Other unintentional injuries were the most common cause of injury for both sexes accounting for about 28% and 27% of the injury separations, respectively (Table 1). Fall-related

Continued on page 2

New on the RCIS Website

- *Hospital separations due to injury and poisoning, Australia 1998–99*
- *Hospitalisation due to traumatic brain injury, Australia 1997–98*
- *Spinal cord injury, Australia, 1999–00*
- *Technical review and documentation of current NHPA injury indicators and data sources*
- *Persisting morbidity among hospitalisations for near drowning, Australia 1997–98*

www.nisu.flinders.edu.au



**AUSTRALIAN INJURY
PREVENTION NETWORK**

presents the

1st Asia-Pacific Injury Prevention Conference

and

6th National Conference on Injury Prevention and Control

16–18 March 2003

Perth, Western Australia

See page 5 for further details

Overview of Injury Hospitalisation

Continued from page 1

Table 1: Case counts and age-specific rates of injury hospitalisations by sex and M:F rate ratio; Australia 1998–99

Age groups (years)	Males		Females		Persons		M:F ratio
	Count	Rate	Count	Rate	Count	Rate	
0–4	13,754	2,094.9	10,284	1,650.8	24,038	1,878.7	1.3
5–9	12,690	1,863.0	8,715	1,346.9	21,405	1,611.6	1.4
10–14	15,552	2,311.0	7,161	1,116.3	22,713	1,727.9	2.1
15–19	22,319	3,290.2	9,490	1,474.0	31,809	2,405.8	2.2
20–24	23,849	3,452.2	9,280	1,395.9	33,129	2,443.8	2.5
25–29	22,214	3,002.3	9,648	1,312.7	31,862	2,160.3	2.3
30–34	17,697	2,514.8	8,726	1,233.4	26,423	1,872.4	2.0
35–39	16,268	2,172.8	9,463	1,258.7	25,731	1,714.8	1.7
40–44	13,539	1,924.8	8,894	1,257.9	22,433	1,590.5	1.5
45–49	11,612	1,759.3	8,062	1,228.3	19,674	1,494.6	1.4
50–54	10,741	1,784.7	7,961	1,369.2	18,702	1,580.5	1.3
55–59	8,651	1,895.5	6,698	1,518.2	15,349	1,710.0	1.2
60–64	7,779	2,080.6	6,649	1,774.9	14,428	1,927.6	1.2
65–69	7,802	2,339.9	7,588	2,182.4	15,390	2,259.5	1.1
70–74	8,467	2,941.1	10,237	3,105.4	18,704	3,028.8	0.9
75–79	7,832	3,796.0	12,835	4,672.1	20,667	4,296.3	0.8
80–84	5,779	5,242.1	12,777	7,141.3	18,556	6,417.2	0.7
85+	5,404	7,668.8	17,305	10,802.1	22,709	9,844.9	0.7
All ages	231,950	2,473.9	170,964	1,814.6	403,724	2,142.7	1.4

Table 2: Injury hospital separations: Major groups of injury by age group; Australia 1998–99

ICD-10-AM major groups of external causes	Age group					All ages
	0–14	15–19	20–34	35–64	65+	
	Per cent					
Transportation	13.9	23.0	17.3	11.2	4.6	12.4
Drowning	0.5	0.1	0.1	0.1	0.0	0.2
Poisoning, pharmaceuticals	4.2	3.2	3.7	2.3	0.7	2.6
Poisoning, other substances	1.7	0.9	1.0	0.7	0.2	0.8
Falls	37.7	14.3	11.4	19.1	54.3	28.5
Fires/burns/scalds	3.6	1.5	1.3	1.1	0.5	1.5
Other unintentional	29.9	33.8	34.6	29.5	11.4	26.8
Intentional, self inflicted	0.7	8.2	9.7	7.3	0.8	5.3
Intentional, inflicted by another	1.3	8.4	10.6	4.9	0.4	4.8
Undetermined intent	0.2	0.9	1.0	0.6	0.1	0.6
Medical misadventure, etc.	6.3	5.7	9.3	23.0	26.9	16.6
All external causes	100.0	100.0	100.0	100.0	100.0	100.0

Note: Age not reported for one male case in the external cause group 'Intentional, inflicted by another'.

hospitalisations were particularly common in the children 0–14 years and persons aged 65+ years, representing 38% (n=25,689) and 54% (n=52,126) of the injuries in these two groups, respectively.

With age, hospitalisations due to complications of surgical and medical care became proportionally more common, increasing from about 23% of the hospitalisations in the 35–64 year age

group to 27% in those aged 65 years and above. Hospitalisations due to Intentional self-harm made up about 5% of injury hospitalisations, with the proportion highest in the 20–34 year age group (i.e. around 10%). Overall, male rates were higher than female rates for all external causes except for Poisoning, pharmaceuticals (X40–X44), Falls (W00–W19) and Intentional, self-harm (X60–X84 and Y87.0). In the case of Falls, male rates were higher than female rates at ages less than 65 years, but elderly female rates were more than double elderly male rates. Rates of Intentional self-harm were higher in females less than 65 years of age than males. However, in age groups 65 years and above, rates in males were higher than females for Intentional self-harm.

Place of occurrence

The transition from ICD-9-CM to ICD-10-AM coding affected the reporting of Place of occurrence. For 30% of cases in those four jurisdictions that coded data directly to ICD-10-AM during 1998–99, Place of occurrence was not reported. Of the remaining hospital separations cases where Place was reported, about 42% (n=68,352) had Place reported as Other specified place and Unspecified place. For those cases where more specific data were

Table 3: Place of occurrence: proportions by sex, NSW, Victoria, ACT and Northern Territory 1998–99

ICD-10-AM Place of occurrence	Persons	
	Count	Per cent
Home	53,272	33.0
Residential institution	6,889	4.3
School, other institutions & public administration area	3,782	2.3
Sport and athletics area	11,422	7.1
Street and highway	4,337	2.7
Trade and service area	5,850	3.6
Industrial and construction area	6,613	4.1
Farm	1,122	0.7
Other specified places	6,598	4.1
Unspecified place	61,754	38.2
All places	161,639	100.0

Continued on page 13

Report from Montreal

Malinda Steenkamp
Research Centre for Injury Studies



The City of Montreal



Inside the Conference Centre

The 6th World Injury Conference took place in May this year. It was memorable for a number of reasons. The first being its setting. Montreal is a beautiful island city and the second largest French-speaking metropolis in the world.

Another outstanding feature of the conference was its energy. The program started early on Sunday afternoon with the opening plenary session and continued until the end of Wednesday afternoon. There were two plenary and/or state of the art lecture sessions each day, as well as three rounds of 14 concurrent sessions. These were further supplemented by numerous posters and video sessions, and followed by a total of 12 business meetings. There were also a number of technical visits.

As always, there were too many presentations to choose from and one's experience of the conference depended on one's choice of sessions.

For me, one of the 'take home' messages was that advocacy in injury is more important than I have realised, and knowing how to do it well is just as important. Two entertaining presentations brought this clearly home to me. The first was by Simon Chapman and the other by Arthur Kellerman.

Associate Professor Simon Chapman of the Department of Public Health & Community Medicine at the University of Sydney, spoke about *Advocacy for injury prevention*. He told the audience that in advocacy you need to study and counteract your opposition. You also need to capture the values that underscore community support. One should be aware

of the importance of symbols, analogies, metaphors and word pictures. Simon pointed out that we live in the world of the 'seven second sound bite'. When dealing with the media one needs to prepare key messages to fit into that time. One should appreciate the role of the media in modern society and realise that in our society the public media are irreplaceable as a mechanism for making things happen.

Professor Arthur Kellerman, Director of the Center for Injury Control at Emory University's School of Medicine spoke about involving health professionals in advocating for injury control policy. According to him, health professionals and injury researchers have a great deal of information to contribute to the policy debate. Unfortunately, they often do not become involved or fail to appreciate the importance of their participation in the debate on these issues. He explained twelve rules when involved with political advocacy. These are:

1. State legislators are not 'little congressmen'. They are citizen legislators; they work at a frenetic pace; they have few or no staff to research issues for them; and therefore, they rely on friends, constituents, and lobbyists for information.
2. Constituent contacts matter. With the exception of a few high profile issues, most legislators get little or no guidance from their constituents. It matters – just take the time!
3. A concerned and informed constituent who takes the time to contact their legislator can trump a paid lobbyist on almost any issue, particularly if they know how to make their case and have personal or institutional credibility with the legislator.
4. Because of your expertise and standing as an academic, you can be particularly influential in advancing injury control issues and priorities.
5. Face-to-face contact is more effective than phone contact, and phone contact is more effective than letters or E-mail. However, letters and/or E-mail are much more effective than no contact at all.
6. Legislators deserve to be treated with respect. Never ever forget this.
7. When preparing to discuss an issue with a legislator, consider their perspective, not yours. Explain why it should matter to them, not why it matters to you.
8. Frame your arguments in terms that a layperson can understand (i.e. using straightforward language) but don't be condescending.
9. Use anecdotes to illustrate and dramatise your points. Stories give emotional context to data. They can be pivotal in swaying a legislator's opinion.

Continued on page 4

Report from Montreal

Continued from page 3

10. Anticipate your opponents' arguments and pre-empt them. (Have a proactive perspective.)
11. NEVER scold a legislator who disagrees with you (see rule # 6 above). You may need their support on another issue. ALWAYS take time to thank legislators who have been helpful. They like positive feedback as much as you do.
12. Government affairs staff and political advisers need your expertise about clinical issues and your grass roots support on issues. You need their expertise about the legislative process and their knowledge of individual legislators. Teamwork is essential. Keep them in the loop regarding your activities and they will let you know when your influence and/or expertise



An Inukshuk, a traditional structure erected by the Indigenous Inuit peoples of Canada to mark trails, was erected in front of the Conference Centre.

are needed with a particular legislator or legislative committee.

The next conference will be in Vienna, Austria from 6–9 June 2004 (see the advertisement below). Starting with this conference, the series of conferences will be renamed the *World Conference on Injury Prevention and Safety Promotion*. The change was decided during the last meeting of WHO Collaborating Centres to reflect the broader dimensions covered during these conferences. The theme for the 2004 conference will be 'Inequalities in injury risks and access to safety solutions'. More information can be obtained at www.safety2004.info

Thought is already given to the 2006 conference and bids from everywhere are welcome, but in the interests of geographical equity, bids from Africa or the Middle East will be given preference.

Draft Declaration on People's Right to Safety

The *Delhi Declaration On People's Right to Safety* was adopted at the 5th World Conference on Injury Prevention and Control held in New Delhi during March 2000. Based on comments received in relation to that document, a *Draft Convention on People's Right to Safety* was prepared. This draft was discussed at a pre-conference Workshop during May 2002, just prior to the start of the 6th World Conference on Injury Prevention and Control held in Montreal 12–15 May 2002. The draft was finalised at the workshop and circulated to all participants at the Conference and comments invited. The draft was then modified based on the comments received and put up for adoption at the closing ceremony of the Conference, where it was adopted as a declaration by the participants of the conference at the closing session.

The *Declaration on People's Right to Safety* is now available for discussion by all human rights and injury prevention and safety promotion groups. The document may be reproduced electronically, or printed, and distributed for discussion with attribution.

The document is available on the Internet: www.iitd.ernet.in/tripp/righttosafety/rightframe.html Comments are welcome and can be directed to Dinesh Mohan, at the Transportation Research & Injury Prevention Programme (TRIPP), Indian Institute of Technology, Tel: 91-11-6591147, 6596361; Fax: 91-11-6858703; E-mail: right_to_safety@rediffmail.com



7TH WORLD CONFERENCE
ON INJURY PREVENTION AND
SAFETY PROMOTION

6-9 June 2004

For full details, visit the Conference website:

www.safety2004.info

Or contact the Conference Secretariat,
Tel: +43 1 715 66 44; Fax: +43 1 715 66 44 30;
E-mail: safety2004@sicherleben.at



The AIPN needs YOU!

Your membership of and participation in the AIPN is vital to enhance our profile and our ability to play a key role in regard to injury policy, research and practice.

The AIPN is the peak national body for all-age, all-cause injury prevention and control in Australia. It's a non-government organisation with membership from all sectors of the injury community.

To join, just complete the enclosed membership form and send it, with your payment, to the AIPN Secretariat. If you're already a member, please renew your AIPN membership as subscriptions are now due for the financial year 2002/2003.

The annual fee for individual members is \$60.00, while corporate membership costs \$120.00 and community membership \$12.00.

Benefits of belonging to the AIPN include:

- Discounts on attendance at AIPN conferences (the next one's in Perth, March 2003)
- A newsletter four times per year.
- An E-mail discussion list to facilitate communication among members on topics of interest. The list is moderated by a member of the executive; responses are included in the process of policy making.
- Affordable membership fees.

The executive committee continues to work hard to further improve benefits and services to members, as well as to ensure that the AIPN grows as the peak organisation for injury prevention in Australia. Examples of current developments include:

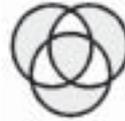
- Drafting of four new policy documents on different aspects of injury.
- Review and update of the Constitution and of the AIPN Strategic Plan.
- Improvements to the AIPN website are underway.
- Review and streamlining of the AIPN's finances.
- Membership drive among Indigenous injury workers.

The AIPN facilitates the minimisation of injury-related harm throughout Australia and for all vulnerable population groups by coordinating the expertise of injury prevention researchers, practitioners and policy makers.

The AIPN was formed in January 1996 in order to establish a framework for collaboration between injury researchers, practitioners and policymakers. The AIPN is incorporated in Victoria. The AIPN operates through an elected Executive Committee of eight people, supplemented by co-opted members and a secretariat.

We look forward to welcoming you as a new or continuing member!

For more information, contact Chris Costa or Debra Houston at the AIPN secretariat, Injury Control Council of Western Australia, Tel: (08) 9420 7212, E-mail: aipn@iccwa.org.au; Richard Franklin, AIPN President, Australian Centre for Agricultural Health and Safety, Tel: (02) 6752 8215, E-mail: rfranklin@doh.health.nsw.gov.au, Malinda Steenkamp, Treasurer, Tel: (08) 8374 0970, E-mail: malinda.steenkamp@nisu.flinders.edu.au or Aleksandra Natora, Secretary. The AIPN website can be found at: www.nisu.flinders.edu.au/AIPN



**AUSTRALIAN INJURY
PREVENTION NETWORK**

presents the

1st Asia-Pacific Injury Prevention Conference

and

6th National Conference on Injury Prevention and Control

16–18 March 2003

Perth, Western Australia

Themes:

Suicide and domestic violence; Sport-related injuries; Injuries among older persons; Issues for Developing Countries; Injuries among Indigenous persons; Road traffic injuries; Childhood injuries; Safe communities; Rural injuries.

Workshops:

Drowning prevention; Social marketing; Research methods; Suicide prevention; Child injury prevention.

Deadline for abstracts:

13th September 2002

For further information:

Contact Congress West Pty Ltd, PO Box 1248, West Perth WA 6872, Australia

Tel: +61 8 9322 6662 or +61 8 9322 6906

Fax: +61 8 9322 1734

E-mail: conwes@congresswest.com.au

Website: www.congresswest.com.au/injury

Australian Directory of Injury Control Personnel

If you don't already know about this resource, you really need to have a look at it. The fully-searchable, regularly updated, *Directory of Australian Injury Control Personnel* is available at the RCIS website:

www.nisu.flinders.edu.au/pubs/injdirect

Having your details included in the *Directory* is just a matter of contacting Stacey Wendt at RCIS. There is a direct E-mail link to Stacey at the *Directory* web page. Alternatively, you can give Stacey a call: Tel: 08 8374 0970.

Towards more useful and valid injury indicators

A newly released RCIS report explores the possibilities for improving current injury indicators. Although, of necessity, a technical tome, the new report will be welcomed by all those who are engaged in trying to monitor how well or badly Australia performs in its attempts to prevent injuries.

This document contributes to a data development plan for the Injury Prevention and Control National Health Priority Area (NHPA) by undertaking a technical review and documentation of current NHPA injury indicators and the data sources relevant to these.

At the time of writing there were 34 NHPA Injury Indicators, twelve based on deaths data and eleven on hospital morbidity data. The remaining eleven refer to other data sources (which were not available when the indicators were written) or are not defined sufficiently to refer to a specific data source.

The Report reviews the status and potential of the current injury indicators in terms of:

- purposes and topics;
- technical specification;
- data sources; and
- data quality.

Most of the current indicators refer to injury occurrence (i.e. those based on deaths and hospitalisations data, as well as Indicators 6.2 and 8.2). A more precise statement of their purpose (i.e. to monitor population incidence) allows improved specification and more focused assessment of data sources and data quality. This results in enhancements that are included in the specification of indicators in the Report, and a set of actions and processes to achieve further development.

Most of the remaining indicators lack adequate specification. Moreover, data sources likely to be suitable for measuring the indicators are not available for most of these.

Specific products of this work are:

- Better technical specification of all of the current NHPA Injury Indicators, based on more comprehensive criteria for specification. This product of the project is presented in Appendix 4 as the 'Minimal Change' model. This represents our best endeavour to replicate the specifications which underlay the NHPA Injury Indicators as originally stated, with particular reference to the indicator data reported in the 1997 indicators report.¹
- An assessment of ways in which the performance of the indicators based on deaths and hospital separations data could be improved for the purpose of monitoring population incidence of injury. This product of the project is presented in Appendix 4 as the 'Technically Revised' model. It embodies a set of revisions that are feasible now. The *Technically Revised* model is proposed for consideration by relevant bodies, and for testing. It is presented as a step towards a more useful and reliable set of injury indicators.

The main elements of the *Technically Revised* model are:

- Specification in relation to a set of technical criteria;
- Restriction to cases with specified anatomical or physiological damage (i.e. injury, defined in terms of ICD-10(-AM) diagnosis codes);
- Restriction of hospital cases to omit most 'same day' cases (rates of 'same day' cases vary greatly probably due to factors largely unrelated to incidence);
- Specifying mortality indicators in terms of date of death (not date of death registration); and
- Re-specification of all indicators in terms of ICD-10(-AM) codes (this includes solutions to the break in series for the indicators of injury due to accidental falls).

A path for the further development of injury indicators is outlined. The main actions and processes stated are as follows:

Indicators of injury incidence: In addition to the changes that comprise the *Technically Revised* model, a number of other matters were noted to be important for the development and maintenance of an effective set of injury indicators. The main points are to:

- Maintain consistency of indicators and associated data sources (i.e. ensure enough system stability to enable monitoring to occur);
- Take advantage of advances in knowledge and improvements in data to refine current indicators (but keeping in mind the previous point);
- Develop indicators of severe injury incidence;
- Review indicator specifications periodically;
- Undertake quality assurance tests and certain other investigations related to data quality;
- Propose changes to data sources if shown to be necessary for adequate reporting of important indicators.

Other indicators: The information requirements of injury prevention programs are likely to require the development and monitoring of selected indicators on new topics, to complement indicators of injury incidence. Likely areas of requirement are: (1) monitoring exposure to factors known to influence risk of injury, including preventive interventions and (2) monitoring service access and quality.

Another likely area of interest is to extend the scope of incidence indicators to some types of injury which do not normally result in death or admission to a hospital. Technical feasibility and cost are likely to be the main constraints.

The complete report is available for downloading at the RCIS website: www.nisu.flinders.edu.au Any inquiries about the content of the document should be directed to James Harrison at RCIS, Tel: 08 8374 0970; E-mail: james.harrison@nisu.flinders.edu.au

Update on driveway runovers

In *Monitor 20* we reported on the problem of children being run over in driveways. The literature relating to this problem has continued to grow. Some recent examples are as follows:

- A recent report by the Australian Transport Safety Bureau has used information extracted from coronial records, to summarise the characteristics of 36 such events that occurred between 1996 and 1998.² Most of the cases involved young toddlers who had positioned themselves close by stationary vehicles in the driveways of suburban residences. These children were old enough to be mobile, but too small to be easily visible from the driving position. The vehicles involved tended to be large, the majority being large 4WD passenger vehicles, large utility vehicles, delivery vans or heavy trucks, although either a sedan or a station wagon was involved in about one-fifth of the cases.
- Across the Tasman, researchers have also been looking into this issue.³ A project carried out between January 1998 and October 2001 used methods that included a review of medical charts, parent interviews, driveway inspections and analysis of coroners' files. Their results identified 77 children run over in this way, 5 of whom died. A typical scenario in the NZ study involved a 2 year old child reversed over in their home driveway by a family member. Injury sustained tended to be serious; 57% involving major trauma and 11% remaining in hospital for a week or longer. The NZ study also sought to identify children at particular risk and found that those from less well off families and the children of families in rental accommodation were over-represented. They also found that some Pacific Islands children and Maori children appeared to be at considerably greater risk.
- The problem of driveway runovers has also been examined and reported on as part of a broader study of injuries and deaths among children left unattended in or around motor vehicles in the US between July 2000–June 2001.⁴ A report, prepared by the Centers for Disease Control and the non-profit Trauma Foundation, looks at data from two databases on both non-fatal and fatal non-traffic motor vehicle incidents. A total of 92 non-fatal cases were identified, representing a national estimate of 9,160 children with non-fatal injuries treated in US hospital emergency departments during July 2000 to June 2001. Injuries occurred in driveways and parking lots in at least 27% of these incidents. The most common type of non-fatal incident was being struck by a motor vehicle, followed by being run over or backed over by an motor vehicle. Of a total of 78 children who died during July 2000 to June 2001 in 76 separate incidents, 21 cases involved a child being backed over. In 12 (57%) of these, the driver was the child's parent.
- In 2000, The NSW Child Death Review Team drew attention to the deaths of 17 children run over and killed by reversing vehicles in private driveways between January 1996 and June 1999 and made relevant recommendations to the Motor Accidents Authority (MAA).⁵ In response, the MAA published a report in October 2000, which looked in detail at how this problem should be tackled.⁶ Their report includes a detailed examination of suitable human, environmental and vehicular countermeasures.

For details about obtaining copies of the above-mentioned reports, see *Something to Read* on page 15.

Australia's Health 2002



The Australian Institute of Health and Welfare released the most recent edition of *Australia's Health* at the end of June. First published in 1988, this series reports biennially on the health status of Australians, the determinants of health, risk factors affecting health, and services and resources applied within the healthcare system.

The report is far-ranging, dealing with such things as life expectancy; the general health of specific population subgroups (e.g. older people, Indigenous Australians, socio-economically disadvantaged, rural and remote people, prisoners, etc); determinants of health (e.g. biomedical factors, lifestyle and behaviour, knowledge, attitudes and beliefs, genetic and environmental factors); and important risk factors such as the consumption of alcohol.

As an identified National Health Priority Area (NHPA)⁷, injury of course features prominently in the latest report. Among the injury-specific content is the following:

- In 1999, injury was the fifth leading cause of death in Australia. A total of 8,361 deaths (5,868 males and 2,493 females) were the result of an external cause of injury accounting for 6.5% of all deaths registered in that year. For people under 45 years, injury was the main cause of death, representing 5.3% of all deaths for people in that age group.
- Suicide accounted for the largest proportion of injury deaths (2,492 deaths or 29.8%) in 1999, followed by deaths due to road crashes (2,011 or 24.1%). Despite the large reduction in death rates from road crashes since 1970, they remain a major cause of injury-related deaths.
- Over the past 20 years, age-standardised death rates due to injury decreased significantly but still less so than overall death rates. Furthermore, during the middle and late 1990s, injury death rates remained more or less static, while all-cause death rates continued to decline.
- Injury is a major cause of hospitalisation. In 1998–99, injury or poisoning was the principal diagnose recorded for 401,723 hospital separations, accounting for about 7% of all hospital separations. The age-standardised hospital separation rate for injury was 2,104 per 100,000 population and the rates for males and females were 2,505 and 1,671, respectively, for this period.
- Accidental falls were the leading single cause of injury-related hospitalisation, representing 28.6% of injury separations. This group of hospitalisations accounted for the largest proportion of bed-days (647,307 bed days or 38.1%) with an average length of stay of 5.6 days.
- Over one in four problems managed by general practitioners

Continued on page 8

relates to NHPA conditions. While circulatory and psychological problems were the most common (11.1% and 7.2% respectively), injury was not far behind, accounting for 5.2%. Over the 12-month period (2000–01), out of a total of 143,528 problems managed by 999 GPs during 99,307 encounters.

- NHPA diseases and conditions entail significant disability. According to the 1998 survey of Disability, Ageing and Carers, in almost 1.4 million cases (38% of people with a disability), NHPA disease and conditions were the main reason for the disability (ABS 1999c). Over 36% of these people had profound or severe core activity restriction and 27% had only mild core activity restriction. Among the NHPAs, mental and behavioural

disorders were the most common cause of disability (38% of NHPA disability), followed by cardiovascular diseases (23%) and injury and poisoning (18%).

- The six NHPAs accounted for an estimated 40% of total health expenditure in 1993–94. The three largest contributors to health expenditure were cardiovascular diseases, mental illness and injuries. Together, these amounted to over \$9.5 billion in health system costs in 1993–94 or around 30% of total health expenditure and 76% of expenditure associated with the six priority areas.

Information about obtaining a copy of the report can be found in the section *Something to Read* on page 15.

Spinal cord injury 1999-00

For several years now, NISU has been publishing reports based on data it derives from the Australian Spinal Cord Injury Register (ASCIR). ASCIR, which is a cooperative arrangement of the six Australian spinal units and NISU, is funded by the Australian Institute of Health and Welfare. The Register—the first of its kind anywhere in the World—collects detailed information about spinal cord injury (SCI), which is one of the most debilitating injuries that any person can suffer.

The most recent report in this series, which focuses on spinal cord injury (SCI) during the financial year 1999-00, is now available and its findings include the following:

During the financial year 1999-2000, 261 new cases of SCI occurred in Australia. Approximately one third of these arose from motor vehicle accidents, a third of which were due to motor vehicle rollover.

Falls were a significant cause of SCI in the elderly. 13 cases of SCI arose from aquatic activities, including diving. A further 44 cases were work related.

The most common outcome of SCI was incomplete tetraplegia (82 cases), indicating a significant level of dysfunction in both the upper and lower limbs.

A complete version of the above report is available for download at the RCIS website: www.nisu.flinders.edu.au/pubs/reports/2001/injcat40.php Requests for printed copies can be directed to Stacey Wendt, Tel: 08 8374 0970, E-mail stacey.wendt@nisu.flinders.edu.au

Any enquiries about the report should be directed to Peter O'Connor at RCIS, Tel: 08 8374 0970; E-mail: peter.oconnor@nisu.flinders.edu.au

Hospitalisation due to traumatic brain injury

In November 1999, NISU released a report on *Needs and Opportunities for improved surveillance of brain injury: a progress report*. A subsequent report on this issue, *Hospitalisation due to traumatic brain injury Australia 1997–98*, is now available.

The most recent publication reports on all cases which meet an agreed international definition of TBI—ie cases which were coded to ICD-9-CM categories 800.0–801.9 *Fracture of the vault or base of the skull*; 89-3.0–804.9 *Other and unqualified and multiple fractures of the skull*; and 850.0–854.1 *Intracranial injury, including concussion, contusion, laceration and haemorrhage*.⁸

In summary, the main findings of the latest report are as follows:

TBI is a relatively serious and common type of injury. In 1997–98 there were more than 25,000 estimated incident cases of TBI in Australia, based on hospital separations. They comprised 7% of all injury hospital separations in that year. The average length of stay was nearly 5 days, but 11% of cases were admitted for a week or more. The elderly, especially falls cases, were more prominent amongst cases having a long length of stay. Of particular concern are the 224 cases, mainly the elderly and unprotected road users, who had brain injuries with prolonged loss of consciousness

that did not return to their pre-existing level of consciousness.

The primary risk group of TBI is young males (15–19 years). In the high risk young age group, motor vehicle traffic accidents are the main cause of TBI. However, falls are the main cause of TBI overall and in many age groups, especially in the very young and the elderly.

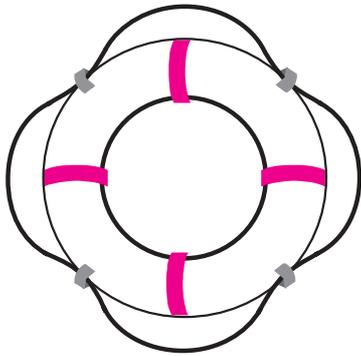
While the TBI rate is cause for concern, there may be reason for some optimism. The incidence rate has declined by an average of 5% annually over a recent two-year period. The motor vehicle occupant TBI rate declined by 8% per annum and the falls TBI rate declined by 4% per annum. It needs to be established whether these declines have been in low severity cases, in response to changes in hospital admission practices, or in all severity categories. Further assessment and monitoring will be required.

The full report can be downloaded, in pdf format, from the RCIS website: www.nisu.flinders.edu.au/pubs/reports/2002/injfat43.php Requests for printed copies can be directed to Stacey Wendt, Tel: 08 8374 0970, E-mail stacey.wendt@nisu.flinders.edu.au

Any enquiries about the report should be directed to Peter O'Connor at RCIS, Tel: 08 8374 0970; E-mail: peter.oconnor@nisu.flinders.edu.au

Near drownings

Persisting morbidity among hospitalised near drownings, Australia 1997-98



The injury issue of *Drowning and near drowning* is one of the four priority topics for 2001–2003 in the *National Injury Prevention Plan*.⁹ In 1999, around 420 Australians died because of drowning and it is estimated that as many people nearly drown as drown.

Drowning is the best known serious consequence of immersion events and a number of Australian reports and articles on the epidemiology of drowning have been published. However, there is a need to describe the national profile of near drowning and to quantify serious outcomes other than deaths following immersion events.

A new report prepared by NISU describes hospital separations related to immersion events for the year 1997–98, but also focuses on hospitalised near drownings that were likely to result in persisting morbidity.

For purposes of this report, near drowning was defined as ‘an immersion event where the person survived and was admitted to a hospital bed’.

Among the key findings of the report were the following:

Hospitalised immersion events

- A total of 831 immersion hospitalisations were identified among hospital separations for 1997–98. However, some injuries result in more than one hospital separation. If ‘transfers to other acute hospitals’ and ‘statistical type discharges’ are excluded, the estimated incident number of immersion cases is 721 for 1997–98.
- Males made up two-thirds (67%) of the 831 separations.
- Age-specific rates were by far the highest for the 0–4 year age group. Also, 238 immersions (29% of 831) were to children aged 1–3 years.
- Accidental drownings accounted for 88% of the 831 immersions, while boating-related incidents formed 8% and intentional incidents 4%.
- Mechanisms of drowning differed by age group. For children aged 1–3 years old, about 61% of the immersions involved a swimming pool, whereas such immersions made up much smaller proportions for those aged 15 years or more.

Continued on page 10

Drowning prevention initiatives in NSW

Currently, there are an average of 87 drownings in NSW each year.¹⁰ Drowning represents the sixth most common cause of accidental death in NSW.¹¹ As described by Williamson and Schmertmann,¹² certain age groups demonstrate higher incidences of drowning, and males in general are more likely to die as a result of drowning than females. As incidents of drowning and near-drowning are considered to be largely preventable, they are a major safety concern for the community. This article describes the NSW Safety Taskforce and the intersectoral activities ensuing to reduce the incidence of drowning and near-drowning in NSW.

The NSW Minister for Sport and Recreation established the *NSW Water Safety Taskforce*, in recognition of the importance of water safety and the need for a coordinated approach. The Taskforce is comprised of 14 member organisations.

The Taskforce developed the *NSW Water Safety Framework 2001–2003*, to assist in developing and presenting strategic advice to the government on matters related to water safety. The overall goals of the framework are to: achieve a coordinated and collaborative framework for water safety in NSW; and ensure an effective and strategic management of water safety in NSW.

Three priority areas have been identified in the framework—education, standards, and evidence—which are accompanied by 7 objectives and 19 strategic directions. A lead agency has been identified for each strategic direction: the NSW Department of Sport and Recreation for education, the Waterways Authority for standards, and the NSW Department of Health for evidence.

Education

The education component of the Taskforce has included:

- launch of *SafeWaters* in 2001;
- televised public awareness campaign for *SafeWaters*;
- development of the *SafeWaters* website and information brochures; and
- a poster competition, run primarily in schools with large numbers of children from non-English speaking backgrounds, which aimed to illustrate key water safety messages.

Standards

The standards component of the Taskforce has included a review of all policy, legislation, regulations, and standards related to water safety, particularly in the areas of:

- minimum training standards and registration of lifeguards;

Continued on page 10

Near drownings

continued from page 9

- Immersions in the bath made up more than half of the 27 immersions in children aged less than 1 year.
- Of the 390 separations for which information on 'Place of occurrence' was available, 61% occurred at *Home* and 30% at *Places of recreation or sport*.
- *Effects of drowning and non-fatal submersion* was the Principal Diagnosis for 70% of separations. Fractures of the neck and trunk accounted for about 4% of separations and head injury for around 3% of the principal diagnoses.
- The 831 separations accounted for 2,938 bed days. For around 25% of the separations, discharge occurred on the same day as the day of admission. About 25% of admitted patients had a stay of three days or more.
- Close to 78% of the separations were discharged to their usual residence after admission.
- There were 58 deaths among the 831 immersions. Of these, 69% were male. Six were less than 1 year of age and 24 were aged 1–3 years. More than half of the patients (n=30) died on the same day that they were admitted.

Probable persisting morbidity among immersion cases

- A total of 41 separations were identified as probable cases with persisting morbidity. Some separations were counted twice and 35 individual patients could be identified.
- These 35 individual cases with persisting morbidity made up about 5% of the 721 estimated incident cases.
- Males made up 74% of the cases.
- All 35 cases were younger than 65 years, with about 60% of the cases aged between 10 and 39 years. This profile is very different from the one for all immersion separations.
- Age seemed to be related to the mechanism of the injury. For example, in boys younger than 10 years, swimming pool-related events were a prominent feature, whereas boating-related immersions were more of a feature for males aged 20–24 years and 40–64 years.
- A total of 235 diagnoses were recorded for the 35 cases with probable persisting morbidity, i.e. an average of 6.7 per separation. There was a total of 200 additional diagnoses recorded, i.e. an average of 5.7 per separation.
- Thirty-three of the 35 cases with persisting morbidity had either a traumatic brain injury (TBI) or a spinal cord injury (SCI). One other case had both a TBI and a SCI.
- Of the 23 TBI cases, ten were aged younger than 15 years and eight were aged 20–39 years. Seven of the ten SCI cases were younger than 40 years.
- More than 50% of the separations were transferred to another acute hospital.

Copies of this report can be downloaded from the RCIS website: www.nisu.flinders.edu.au/pubs/reports/2002/injcat45.php Any inquiries about the report should be directed to its author, Malinda Steenkamp, at RCIS, Tel: 08 8374 0970; E-mail: malinda.steenkamp@nisu.flinders.edu.au

NSW Drowning prevention initiatives

Continued from page 9

- collection of information on near-drownings at beaches and public swimming pools;
- compliance and enforcement of residential swimming pool fencing; and
- safety issues around rockfishing.

Research

Research is currently being conducted in a number of areas for the Taskforce, including:

- a feasibility trial of collecting data using a minimum dataset for water safety at a number of NSW beaches and public swimming pools;
- collection of information on the number of people who take part in specific water-related activities (such as rockfishing) and/or visit particular aquatic venues (such as beaches or who have access to private swimming pools) to establish estimates of exposure to risk;
- an investigation of the circumstances surrounding the drowning of children aged 0–6 years in NSW;
- assessment of the feasibility of using community health centres as a contact point for drowning prevention information;
- a feasibility trial of using a Safe Community partnership model to distribute drowning prevention information and increase the number of people in a given area who either learn or renew their skills in resuscitation techniques;
- assessment of how differently-sized local government councils approach the issue of compliance with regulations regarding backyard swimming pools, including an analysis of the management issues confronting the councils, a survey to assess the receptions of water safety and use of aquatic areas in rural and remote locations in NSW;
- a survey of local government councils regarding the type of information that is held regarding swimming pools owned by their residents; and
- an investigation of fatalities of people rockfishing over the last 10 years in NSW.

The vision and ultimate outcome sought through the implementation of the NSW Water Safety Framework 2001–2003 will be a reduction in the trend in the annual rate of drownings, near-drownings, and water-related incidents in NSW.

Further information about the NSW initiatives is available from Rebecca Mitchell at NSW Health, Tel: 02 9391 9951; E-mail: rmitc@doh.health.nsw.gov.au

This article first appeared in the most recent edition of the NSW Public Health Bulletin (see Something to Read on page 15 for details).

Australian beach hazards

Andrew Short

Coastal Studies Unit, University of Sydney

The Australian coast contains 10,000 km of open ocean coastline, 75% of which is sandy shoreline consisting of over 9,000 beach systems. The *Australian Beach Safety and Management Program* (ABSAMP) is involved in research into beach types, physical hazards and risk, including the hazard rating of all Australian beaches, and risk assessment of those beaches used by the public. The program is a joint venture between the University of Sydney and Surf Lifesaving Australia (SLSA). Since 1990, ABSAMP has assessed all 7,587 beaches from Broome in the northwest, across tropical northern Australia, down the entire east coast, and across southern Australia to the SA/WA border, a distance of 22,267 km.



The assessment procedure involves the following. Each beach is identified and located using topographic maps, vertical aerial photographs and oblique aerial photographs taken from a low altitude plane. All beaches accessible by vehicle have been inspected on the ground, and eight trips in small boats enabled ground inspection of hundreds of other beaches along parts of the southeast coast and 14,000 km of coast between Broome and central Queensland.

Data collected on each beach is entered into a database containing up to 110 variables, and each beach is located on a map layer of the coast in a MapInfo GIS (geographic information system). The data includes information on beach name, location, access, facilities, all physical characteristics of the beach-surf zone (bars, rips, headlands, reefs etc.), as well as creeks and inlets, and backing dunes. Each beach is then given an *average beach hazard rating* based on beach type and topography, wave-tide

conditions, surf zone currents and local factors such as reefs, headlands and inlets. Beaches with a high tide range receive both a high and low tide rating.



Digital aerial and/or ground images are also recorded for each beach, and beach maps showing the surf zone topography are compiled for all patrolled and popular beaches.

In an operational situation the *prevailing beach hazard* rating can be readily assessed based on the prevailing beach type, and actual wave, tide and wind conditions. The prevailing rating may change during the day as wave, tide, weather and beach conditions change.

In Australia, 14 beach types exist around the coast and are grouped into wave-dominated, tide-modified and tide-dominated categories. These accommodate all possible beach conditions, which range from beaches exposed to the world's highest average waves through to those exposed to low waves and some of the world's biggest tides. These beach types are also applicable to most of the world's beach systems.

ABSAMP has, to date, assessed the



type and level of hazard on 80% of Australia's 9,000 plus beach systems. These results can be summarised on a

regional/state basis and presented in terms of mean hazard rating, which ranges from 1 (least hazardous) to 10 (most hazardous). The Kimberley region, a low wave but high tide range coast, has the lowest average rating of 1.3, while the Victorian coast, exposed to year-round high energy Southern Ocean swell has the highest rating at 5.2. The high wave NSW and South Australian coasts also have high average ratings of 4.5 and 4.0 respectively, while the low wave, high tide range conditions of Queensland and the Northern Territory are reflected in their average ratings of 2.2 and 1.6 respectively. The Western Australian and Tasmanian coasts are currently being assessed.

The results of this research are being used in three ways:

Education

Factual information on beach types and hazards is available at a generic level, as well as specific to states and regions and individual beach assessments. Information on beach types and hazards has been incorporated into a range of educational materials produced by SLSA, including the *Surf Lifesaving Training Manual* and the *Surf Ed* curriculum.

Operations

The *Beach Management Plan* was developed in 1996 to enable lifesavers to assess prevailing beach hazards and



thereby, together with beach attendance, the level of risk and resulting operational requirements. This has now been incorporated into the *Coastal Safety Auditing Program* which assesses a wider range of beach attributes to determine the level of beach safety resources required to maintain an

Continued on page 12

Australian beach hazards

Continued from page 11

acceptable level of public safety. This information will be linked to the *Coastal Incident Database* that records all drownings, thereby permitting analysis of risk correlation. All these systems are now being integrated as part of a three-year project (tentatively named *SurfGuard*) designed to make the entire system an online, real-time GIS (geographic information system) fully operational at the beach.

Coastal planning

The Australian federal and some state governments have already recognised the need to conduct coastal safety audits in developed regions, and in particular to conduct audits in association with new coastal developments so that all beach



hazards and risk levels are known and appropriate lifeguard facilities in place to mitigate risk before drowning incidents occur.

The ABSAMP model has been used by Surf Life Saving New Zealand in their Coastal Survey of all patrolled beaches, and has also formed the basis of the United Kingdom RNLI Beach Rescue

Risk Assessment Model. With appropriate modification the ABSAMP model and *SurfGuard* are adaptable to all coastal environments and beach cultures around the world.

To date, separate books have been published on the beaches of Queensland, Victoria, NSW and South Australia.

For further information about ABSAMP or the books mentioned above, contact Andrew Short at the Coastal Studies Unit, University of Sydney, Tel: 02 9351 3625; E-mail: ashort@mail.usyd.edu.au To obtain ABSAMP data, contact Kathryn McLeod at SLSA, Tel: 02 9130 7370; E-mail: kmcleod@slsa.asn.au

Injury researchers awarded Churchill Fellowships

Richard Franklin

Richard Franklin has been awarded a Churchill Fellowship to undertake an examination of how other countries manage and use farm injury information, particularly focussing on: how this information is collected; the techniques used to improve the quality of the information; and how the information is translated into a format that allows injury prevention workers to prevent similar events from occurring.

Richard will be travelling to New Zealand, the United States of America and Canada over a two month period. Places he will be visiting include the Injury Prevention Research Centre at the University of Otago in New Zealand, National Centre for Injury Prevention and Control at the Centers for Disease Control in Atlanta, National Institute for Occupational Health and Safety in Washington, Institute of Agriculture, Rural and Environmental Health at the University of Saskatchewan in Canada and Agricultural Health and Safety Centre in California, Wisconsin, and Iowa.

Richard can be contacted on Tel: 02 6752 8215; E-mail: rfranklin@doh.health.nsw.gov.au

Kerry Smith

Kerry Smith, Assistant Director (Acting) of the Alcohol, Substance Misuse and Injury Prevention Section of the Commonwealth Department of Health and Ageing has been awarded a Churchill Fellowship to follow up the findings of her research into deterrence and recidivist drink drivers in the ACT.

Kerry's PhD thesis, which is currently being finalised,

has been conducted through the School of Law at the University of Canberra.

Her research suggests that drink driving behaviour is normative for many repeat offenders and therefore difficult to change. It attracts social rewards such as the approval and encouragement of their peers and detection, arrest and punishment are seen as 'bad luck'.

Kerry believes that drink driving behaviour causes a huge burden on the health system in Australia through deaths and injuries. Recidivist drink drivers clearly don't respond to the current deterrents such as random breath testing, fines and licence suspension and, as a result, other responses are required to address this group.

The Fellowship will allow Kerry to examine innovative alcohol and drink-driving programs and sanctions in several overseas countries including New Zealand, USA, Canada and England. She hopes to be able to provide recommendations to road safety and health authorities on new strategies to address the problem of repeat offenders.

Kerry has been with the Department of Health and Ageing for the past 2¹/₂ years, and has worked in road safety and injury prevention for the past 15 years. She was previously the national Executive Officer of the Australian College of Road Safety, and ACT Executive Officer with Kidsafe.

During 1999, Kerry worked for the Country Fire Authority in Victoria at the Geelong West Fire Brigade following the deaths of five firefighters in a bush fire at Linton in December 1998.

Kerry Smith can be contacted on Tel: 02 6289 8625, E-mail: kerry.smith@health.gov.au

Overview of Injury Hospitalisation

Continued from page 2

available, injury most often occurred in and around the home with 53,272 (33.0%) of the cases being injured there. There were some differences between the genders and age groups. For the jurisdictions that coded data directly to ICD-9-CM, 9% of cases did not provide any data on Place. Of those that did provide relevant data, about 50% (n=77,934) were coded to *Other specified place* or *Place not specified*.

Activity at time of injury

Activity of the injured person at the time of occurrence of the external cause is a new code in the ICD-10-AM classification. For the four States using the ICD-9-CM classification during 1998–99, no information on activity was reported that could be mapped to the ICD-10-AM Activity categories. For the other four jurisdictions, more than 70% of cases were coded to either *Other specified activity* or *Unspecified activity*. Where some specific activity during injury occurrence was reported, there appeared to be noticeable gender differences. Males seemed to be particularly at risk of injury while engaged in sports activity or while working for income, whereas for females injuries during leisure and vital activities were more predominant. There were also some age differences.

Body parts injured

During 1998–99, Injury to shoulders and upper limbs were the most common injuries diagnosed and treated in males and females, accounting for about 28% (n=64,366) and 20% (n=34,943) of the cases, respectively.

The number of cases of injury to the head and injury to the hips and lower limbs was similar proportionally in males and accounted for about 18% each. In females, the number of cases of Injury to

the hips and lower limbs was proportionally higher than in males and made up about 23% of the cases diagnosed.

Head injuries were diagnosed in 15% of the cases, with males having more than twice as many head injuries diagnosed as females. Males and females, aged 0–4 years, young persons aged 15–19 years and those aged 80+ years, had high rates for Head injury, reaching highest levels in old age. Overall, males were more than twice as likely to be hospitalised with head injuries as females at all ages (i.e. 442 versus 205 head injury hospital separations per 100,000 population).

Hospitalisations due to Injuries to the wrist and hand were also very common, but rates were lower than rates for head injuries. Highest rates in both sexes occurred during teenage and early adult years (15–24 years).

The occurrence of hip and thigh injuries appeared to be associated with ageing as rates in both sexes began to increase at age 55 years. In those aged 65 years and above, the rates increased exponentially in both sexes, reaching their highest rate in the very old (85 years and above). In general, female rates were higher than male rates at age 60 years and above.

Length of stay

In 1998–99, the 403,724 separations resulted in a total of 1,711,091 bed days, i.e. an average length of stay (LOS) of 4 days. For 28% (n=114,877) of these separations, discharge occurred on the same day of admission. If the same day cases are removed, the total number of bed days was 1,596,214 for 288,847 separations, i.e. an average of 6 days. About 47% of these admitted patients had a stay of 3 days or more (n=135,354).

In terms of LOS, Injuries to the hip and thigh were second highest in rank after Complications of surgical & medical care, not elsewhere classified with over 300,000 bed days required for treatment. Females accounted for more than twice the number of bed days due to the prevalence of hip and thigh injuries in this group. These injuries also had the second highest LOS (11 days) followed by Injuries to the abdomen, lower back, lumbar spine and pelvis (8 days).

Where people were discharged to

Over 84% of all injury cases were discharged to their usual residence. In the case of children, 93% were discharged to their home. For elderly cases (aged 65 years and older), about 68% of cases were discharged to their usual residence.

Less than 1% (n=3,434) of the cases died in hospital. About 47% of these were female and 70% (n=2,389) were elderly patients. About 10% of the cases (n=39,409) were discharged to another acute hospital facility and 45% were elderly cases.

State and Territory differences

Age-standardised rates in all States and Territories, except NSW, were significantly different from the national average rate of 1,524 hospital separations per 100,000 population (95% CI=1,518 to 1,529). Rates in Queensland, Western Australia, South Australia and the Northern Territory were significantly higher than the national rate. Rates in Victoria, Tasmania, and the ACT were significantly lower than the national average.

National Health Priority Areas

The *National Injury Prevention Plan* specifies four priority areas for 2001–2003:

Falls among people aged 65+ years

52,126 hospitalisations resulted from falls among the elderly in 1998–99. These made up more than 50% of all hospitalised injuries to the elderly. One-third of the elderly falls were to persons aged 85 years or more.

In 1998–99, hospitalisation rates for falls among the elderly increased exponentially as age rose. The increase between age groups was steeper for the older age groups.

Table 4: Injury hospital separations: Principal diagnosis by body region, Australia 1998–99

Principal diagnosis by body region	Males		Females		Persons	
	Count	Per cent	Count	Per cent	Count	Per cent
Head	41,480	17.9%	19,419	11.3%	60,899	15.1%
Trunk (neck, thorax, abdomen, lower back, lumbar spine and pelvis)	19,170	8.3%	15,203	8.9%	34,373	8.5%
Shoulder and upper limb	64,366	27.7%	34,943	20.3%	99,309	24.6%
Hip and lower limb	41,153	17.7%	38,977	22.7%	80,130	19.8%
Other injuries not specified by body region	65,781	28.4%	63,232	36.8%	129,013	32.0%
All body regions	231,950	100.0%	171,774	100.0%	403,724	100.0%

Continued on page 14

In the journals—recent Australian injury research

Here are several injury articles by Australian authors which have appeared in peer-reviewed journals during 2002. An increasing number of journals are making abstracts and/or the full text of articles available on the Internet. Where this is so, we've included the relevant Internet address:

Falls:

- Day L, Fildes B, Gordon I, Fitzharris M, Flamer H, Lord S. Randomized factorial trial of falls prevention among older people living in their own homes. *British Medical Journal* 2002; 325(7356): 128-132. www.bmj.com

Farm injury:

- Mitchell RJ, Franklin RC, Driscoll TR, Fragar LJ. Farm-related fatal injury of young and older adults in Australia, 1989-1992. *Australian Journal of Rural Health* 2002; 10(4): 209-219.

Alcohol and Drugs:

- Kang M. Substance abuse in teenagers: Trends and consequences. *Aust Family Phys* 2002; 31(1):8-11. www.racgp.org.au/document.asp?id=5316
- Corrine R Balit, Geoffrey K Isbister, Jennifer Peat, Andrew H Dawson, Ian M Whyte. Paracetamol recall: a natural experiment influencing analgesic poisoning. *MJA* 2002; 176: 162-165. www.mja.com.au
- Bensoussan A, Myers SP, Drew AK, Whyte IM, Dawson AH. Development of a Chinese herbal medicine toxicology database. *Journal of Toxicology and Clinical Toxicology* 2002; 40(2):159-167.

Suicide and Self-harm:

- Ticehurst S, Carter GL, Clover KA, Whyte IM, Raymond J, Fryer J. Elderly patients with deliberate self-poisoning treated in an Australian general hospital. *Int Psychogeriatr* 2002; 14(1):97-105. www.ipa-online.org/ipaonline3/publications/archive/14_1toc.asp#9
- Scouller KM, Smith DI. Prevention of youth suicide: how well informed are the potential gatekeepers of adolescents in distress? *Suicide and Life Threatening Behavior* 2002; 32(1):67-79.
- Simpson G, Tate R. Suicidality after traumatic brain injury: demographic, injury and clinical correlates. *Psychological Medicine* 2002; 32(4): 687-697.

Transport-related:

- Treacy PJ, Jones K, Mansfield C. Flipped out of control: single-vehicle rollover accidents in the Northern Territory. *MJA* 2002; 176: 260-263. www.mja.com.au
- Incidence and patterns of spinal cord injury in Australia. O'Connor P. *Accid Anal Prev* 2002; 34(4): 405-415. www.sciencedirect.com/science/publications/journals
- Injury to the spinal cord in motor vehicle traffic crashes. O'Connor P. *Accid Anal Prev* 2002; 34(4): 477-485. www.sciencedirect.com/science/publications/journals
- Bauer IL. Travel health: a survey of life jacket designs currently in use on commercial aircraft. *J Travel Med* 2002; 9(3): 132-136. www.istm.org/jtm/may02.html#travel
- Cole BL. Protan colour vision deficiency and road accidents. *Clin Exp Optom* 2002; 85(4):246-253. www.optometrists.asn.au/ceo/vol85/4/ceo854246.pdf
- Lee AH, Stevenson MR, Wang K, Yau KK. Modeling young driver motor vehicle crashes: data with extra zeros. *Accid Anal Prev* 2002; 34(4): 515-521. www.sciencedirect.com/science/publications/journals

Recreation and Sports:

- Makdissi M, Brukner P. Recommendations for lightning protection in sport. *MJA* 2002; 177 (1): 35-37. www.mja.com.au
- Orchard JE, Finch CF. Australia needs to follow New Zealand's lead on sports injuries. *MJA* 2002; 177 (1): 38-39. www.mja.com.au
- Finch C, Donohue S, Garnham A. Safety attitudes and beliefs of junior Australian football players. *Inj Prev* 2002; 8(2):151-154. ip.bmjournals.com/cgi/content/full/8/2/151

Child products:

- Thompson PG. Injury caused by baby walkers: the predicted outcomes of mandatory regulations. *MJA* 2002; 177(3): 147-148. www.mja.com.au

Community-based injury prevention:

- Ozanne-Smith J, Day L, Stathakis V, Sherrard J. Controlled evaluation of a community based injury prevention program in Australia. *Inj Prev* 2002; 8(1):18-22. ip.bmjournals.com/content/col8/issue1/#original_articles

Eye injuries in children:

- Kumar N, Billson FA, Martin F. The aetiology of perforating ocular injuries in children. Thompson CG, *Br J Ophthalmol* 2002; 86(8): 920-922. bj.o.bmjournals.com/cgi/content/abstract/86/8/920

Overview of Injury Hospitalisation

Continued from page 13

Falls among children 0-14 years 25,689 children were hospitalised as the result of falls in 1998-99. These accounted for about 38% of all injuries to children.

Males aged 5-9 years had the highest rates and made up more than one-third of falls among males aged 0-14 years.

Near drowning

There were 608 near drowning cases in 1998-99, i.e. less than 1% of all the injury hospitalisations during this period.

Of the 608 cases, about 48% (n=292) were to children aged 0-4 years and about 23% (n=99) were to males aged 15-34 years.

Poisoning among children aged 0-4 years

There were more than 3,500 hospital separations due to poisoning among children aged 0-4 years in 1998-99. These cases accounted for 15% of all injury to children aged 0-4 years during this period.

Copies of this report can be downloaded from the RCIS Website: www.nisu.flinders.edu.au/pubs/reports/2002/injcat46.php
Printed copies of the report (AIHW Catalogue no. INJCAT 46) are available for \$25.00 from Ausinfo, Tel: 132 447 (toll free throughout Australia); E-mail: stacey.wendt@nisu.flinders.edu.au

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



ISSN No 1039-4885
AIHW Cat. No. INJ 49

Something to read ...?

Australian hospital statistics 2000-01



Australian Hospital Statistics 2000-01 presents detailed information on the characteristics and hospital care of the six million people admitted to public and private hospitals, including their age, sex, diagnoses and the procedures they underwent. Information on Australia's hospitals includes the number of hospitals and hospital beds, and key statistics on the resources, expenditure and revenue of public hospitals and on the services they provide. Data on a range of hospital performance indicators are also reported using the National Health Performance Committee's framework.

Of particular interest to those with an interest in injury, is a chapter on external causes of injury and poisoning for admitted patients.

Printed copies of the report (AIHW Catalogue No HSE-20) are available, for \$32.50, from Ausinfo, Tel: 132 447 (toll free throughout Australia). A copy of the report can also be downloaded from the AIHW website: www.aihw.gov.au/publications/health.html

Driveway deaths

Copies of the various reports referred to in the article on page 7 are available as follows:

- Australian Transport Safety Bureau report, *Driveway deaths: Fatalities of young children in Australia as a result of low-speed motor vehicle impacts*, Report No CR208, April 2002 is available from the Internet: www.atsb.gov.au/road/rpts/cr208/index.cfm
- *Injuries and Deaths Among Children Left unattended in or around motor vehicles, United States, July 2000-June 2001* appeared in the periodical *MMWR* on 5 July 2002. *MMWR* is available on the

Internet: www.cdc.gov/mmwr/preview/mmwrhtml/mm5126a3.htm

- *Driveway injuries: a preventable tragedy* appeared in *Safekids News*, Issue 17, June 2002. Copies of this newsletter, prepared by Starship Children's Health in New Zealand are available on the Internet: www.safekids.org.nz
- Prepared by the Motor Accidents Authority of NSW, the report *Child Deaths and Injuries in Driveways: Response to the Recommendations of the NSW Death Review Team 1998-99* can be downloaded from their website: www.maa.nsw.gov.au/pdf/child_fatalities.pdf
- The NSW Child Death Review Team's recommendations to the Motor Accidents Authority of NSW regarding the issue of children being runover appeared in its *1999-98 Annual Report*. Several of the Review Team's publications are available on the Internet: www.kids.nsw.gov.au/publications/cdrt2000.html

NSW Public Health Bulletin



The most recent edition of the *NSW Public Health Bulletin* (Volume 13, Number 4, April 2002) contains a variety of injury-related articles. Guest edited by Dr Jane Elkington, a Public Health Consultant, it includes articles and reports on: Research and planning for injury prevention (guest editorial); A brief overview of injury in New South Wales; NSW Injury Risk Management Research Centre; The cost of injury in New South Wales; A risk management framework; Safe Communities; NSW Safe Communities pilot projects-Evaluation methodology; Patterns of drowning and near drowning in NSW; NSW Water Safety Taskforce; Mid North Coast Aboriginal injury surveillance project; surveillance guidelines.

A previous edition—Volume 13,

Numbers 1-2, January-February 2002—contained a series of articles on falls and their prevention in NSW.

Copies of this publication can be downloaded from the NSW Health website: www.health.nsw.gov.au/public-health/phb/phb.html

Australia's Health 2002



Details of this publication are contained in the article on page 8 of this *Monitor*.

Printed copies of the report (AIHW Catalogue No HSE-20) are available, for \$50, from Ausinfo, Tel: 132 447 (toll free throughout Australia).

Alternatively, the complete report can be downloaded from the AIHW Website: www.aihw.gov.au/publications/health.html

Fatal Assault of children and young people

This recently released report examines the deaths of 60 children and young people who died as a result of fatal assault in the period January 1996 to July 1999 in New South Wales. Prepared by the Child Death Review Team of NSW.

The report can be downloaded from the Internet: www.kids.nsw.gov.au/files/final_fatal_assault.pdf For inquiries about obtaining a printed version, Tel: 02 9286 7276, E-mail: kids@kids.nsw.gov.au

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

Older Driver Conference

26-27 August 2002
Melbourne

Contact: Brian Fildes, Monash University Accident Research Centre, Tel: 03 9905 4369; E-Mail: brian.fildes@general.monash.edu.au

2002 National Indigenous Women's Issues Conference

26 -27 August 2002

Adelaide

Contact: ICSA, PO Box 400, Airlie Beach Qld 4802, Tel: 07 4945 7122; Fax: 07 4945 7224

Health Care in Focus (Incorporating the 14th Casemix Conference)

1-4 September 2002

Melbourne

Contact: Casemix Conference Secretariat, C/- Commonwealth Department of Health & Aged Care, Tel: 02 6281 6624; Fax: 02 6285 1336; E-Mail: conference@conlog.com.au Website: www.health.gov.au/casemix

Current Issues in Regulation: Enforcement and Compliance

2-3 September 2002

Melbourne

Contact: Natalie Taylor, Australian Institute of Criminology, Tel: 02 6260 9254; Fax: 02 6260 9201; E-mail: taylor@aic.gov.au Website: www.aic.gov.au

International Network on the Prevention of Accidents & Trauma at Work

3-6 September 2002

Elsinore, Denmark

Contact: Conference secretariat, Tel: +45 70 222 130; E-mail: workingonsafety@nhg.dk Website: www.workingonsafety.net

Crime Prevention

12-13 September 2002

Sydney

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

Probation and Community Corrections: Making the Community Safer

23-24 September 2002

Perth

Contact: Peter Marshall, Australian Institute of Criminology, Tel: 02 6260 9275; Fax: 02 6260 9201; E-mail: peter.marshall@aic.gov.au Website: www.aic.gov.au

34th Public Health Association of Australia Annual Conference

29 September to 2 October 2002

Adelaide

Contact: PHAA Secretariat; Tel: 02 6285 2373; E-mail: conference@phaa.net.au

46th AAAM Annual Scientific Conference

29 September to 2 October 2002

Tempe, Arizona, USA

Contact: Association for the Advancement of Automotive Medicine, Tel: +1 847 844 3880; Fax: +1 847 844 3884; E-Mail: aaam1@aol.com Website: www.carcrash.org

The Role of Schools in Crime Prevention

30 September to 1 October 2002

Melbourne

Contact: Conference Co-ordinators, Tel: 02 6292 9000; Fax: 02 6292 9002; E-mail: confco@austarmetro.com.au Website: www.aic.gov.au

Australian & New Zealand Society of Criminology Conference

1-3 October 2002

Brisbane

Contact: ANZSOC 2002 Secretariat, Key Centre for Ethics, Law, Justice and Governance, Griffith University, Tel: 07 3875 3563; Fax: 07 3875 6634; E-mail: s.lockwood-lee@mailbox.gu.edu.au Website: www.gu.edu.au/school/ccj/ANZSOC2002/

Short Course: Healthy Cities & Communities

21-25 October 2002

Adelaide

Contact: Helen Scherer, Department of Public Health, Flinders University of SA, Tel: +61 8 8204 3925; Fax: +61 8 8204 5693; E-Mail: public.health@flinders.edu.au Website: som.flinders.edu.au/FUSA/PublicHealth/index.html

Short Course: Health Promoting Health Services

28 October to 1 November 2002

Adelaide

Contact: Helen Scherer, Department of Public Health, Flinders University of SA, Tel: +61 8 8204 3925; Fax: +61 8 8204 5693; E-mail: public.health@flinders.edu.au

2002 Road Safety Research, Policing and Education Conference

3-5 November 2002

Adelaide

Contact: Road Safety 2002 Secretariat, Plevin and Associates, Tel: +61 8 8379 8222; Fax: +61 8 8379 8177; E-Mail: events@plevin.com.au

APSAD 2002 Alcohol and Drug Conference

18-20 November 2002

Adelaide

Contact: Plevin and Associates, Tel: +61 8 8379 8222; E-mail: events@plevin.com.au Website: www.plevin.com.au/apsad2002

8th International Health Summer School

18-22 November 2002

Brisbane

Contact: Julie-Anne Carrol, School of Public Health, Queensland University of Technology; Tel: +61 7 3864 5611; Fax: +61 7 3864 5880; E-mail: jm.carroll@qut.edu.au Website: www.hlth.qut.edu.au/ph/international/summer_school.jsp

Short Course: Health Program Evaluation

25 November to 1 December 2002

Melbourne

Contact: Joy Yeadon, Centre for Health Program Evaluation, Tel: +61 3 9496 4440; Fax: +61 3 9496 4424; E-mail: j.yeadon@unimelb.edu.au

1st Asia-Pacific Injury Prevention Conference and 6th National Conference on Injury Prevention and Control

16-18 March 2003

Perth

Deadline for abstracts: 13th September 2002
Contact: Congress West Pty Ltd, Tel: +61 8 9322 6662 or +61 8 9322 6906; Fax: +61 8 9322 1734; E-mail: conwes@congresswest.com.au Website: www.congresswest.com.au/injury

18th International Technical Conference on the Enhanced Safety of Vehicles

19-22 May 2003

Nagoya, Japan

Deadline for abstracts: 15 September 2002.
Contact: PROCOM International Co Ltd, Tel: +81 3

3234 4704; Fax: +81 3 3234 4456; E-mail: esv2003@procom-i.co.jp Website: www.esv2003.com/

Nordic Safe Community Conference

26-29 August 2003

Helsinki, Finland

Contact: Merja Soderholm, Tel: +358 9 160 4028; Fax: +358 50 597 0451; E-mail: merja.soderholm@stm.vn.fi

XXII Congress of the International Association for Suicide Prevention (IASP)

10-14 September 2003

Stockholm, Sweden

Deadline for abstracts: 15 March 2003.
Contact: Congress Secretariat, Tel: +46 8 5465 1500; Fax: +46 8 5465 15 99; E-mail: iasp2003@stocon.se Website: www.ki.se/suicid/iasp2003

1st International Congress on Health and Safety in Transport

16-18 September 2003

Paris, France

Contact: Riv Turquoise, Tel: +33 01 47 95 54 54; Fax: +33 01 47 95 54 55; E-mail: riv.turquoise@wanadoo.fr

7th World Conference on Injury Prevention and Safety Promotion

6-9 June 2004

Vienna, Austria

Deadline for abstracts: 30 September 2003.
Contact: Fax: +43 1 715 66 44 30; E-mail: safety2004@sicherleben.at Website: www.safety2004.info

References

- 1 Australian Institute of Health and Welfare and the Department of Health and Family Services. *National Health Priority Areas Report: Injury Prevention and Control, 1997*. Canberra 1997.
- 2 Australian Transport Safety Bureau report, *Driveway deaths: Fatalities of young children in Australia as a result of low-speed motor vehicle impacts*, Report No CR208, April 2002
- 3 Driveway injuries: a preventable tragedy. *Safekids News*, Issue 17, June 2002.
- 4 Injuries and Deaths Among Children Left unattended in or around motor vehicles, United States, July 2000-June 2001. *MMWR* 5 July 2002.
- 5 Motor Accidents Authority of NSW. *Child Deaths and Injuries in Driveways: Response to the Recommendations of the NSW Death Review Team 1998-99*
- 6 NSW Death Review Team
- 7 Australian Institute of Health and Welfare and the Department of Health and Family Services. *First report on National Health Priority Areas*. Canberra 1996.
- 8 CDC definition for TBI
- 9 Department of Health and Aged Care. *National Injury Prevention Plan: Priorities for 2001-2003 and implementation plan*. Canberra. 2001.
- 10 NSW Injury Risk Management Research Centre. *Analysis of Drowning in Australia and Pilot Analysis of Near Drowning in NSW* Australian Water Safety Council: Sydney, 2000.
- 11 Public Health Division. *Patterns of Injury Costs, NSW 1995-96*. Sydney: NSW Department of Health, 1998.
- 12 Williamson A and Schertmann M. Patterns of Drowning and Near Drowning in NSW. *NSW Public Health Bulletin*. Vol 13, No 4, April 2002.