REGIONAL REPORTS

Injury hospitalisation among indigenous Australians

Poor health experience is something most indigenous communities have in common. This is certainly the experience of Australia's Aboriginal and Torres Strait Islander (A&TSI) community. With 20 years less expectancy of life it is estimated that 70% of the excess mortality for Aborigines in north Queensland is associated with preventable causes such as circulatory disease and injury.[1]

This note concerns injury hospitalisations among the indigenous community for which detailed child injury analysis is now available.[2] It is hoped that subsequent issues of the journal will deal with indigenous communities in other countries.

Over a long period, injury mortality, social and economic indicators have shown the absolute and relative disadvantage of the indigenous population; recent attention to injury in the indigenous population has shown that injury rates conform to this pattern.[3] While the overall pattern has been clear the detail has been explored in recent reports, the analysis is still circumscribed by data difficulties.[4]

A number of features are clear from analysis of hospital separations for 1991/2 in all Australian regions except the Northern Territory, which has about 15% of the Aboriginal population:

- Aborginal injury related hospitalisation rates are three times those of non-Aboriginals;
- The age distribution of injury in indigenous and non-indigenous populations is very different;
- Aboriginal hospitalisation rates are higher for each major cause of injury except drowning among males;
- For interpersonal violence the indigenous hospitalisation rate is 17 times higher than the non-indigenous community.

Falls: fall hospitalisations are the highest category of injury for both groups but are one third higher among A&TSI children 0–4 than among non-A&TSI children (668 per 100 000 compared with 499); marginally lower among those 5–9 years (633 and 671 respectively) and those 10–14 years (450 and 504); but substantially higher for those 15–19 years (512 and 300).

Poisoning is a significant cause of hospitalisation among children aged 0–4 in both communities — among Aboriginal children the rate is about one third higher (270 per 100 000 compared with 206) for pharmaceutical poisoning and double for non-pharmaceutical poisoning (205 and 95 per 100 000). Hospitalisations rates are lower for older children but the Aboriginal to non-Aboriginal difference is much higher. Among indigenous children 5–9 the rate is 5.8 times that for non-indigenous children (57.3 compared with 9.86 per 100 000).

Fire burns and scalds are injuries where the ratios of hospitalisation between Aboriginal and non-Aboriginal children are high. Among indigenous children aged 0–4 fire burn hospitalisation is 6.8 times that of other children, for children 5–9 the ratio is 5.6 to 1 and for those aged 10–14 it is 3.5 to 1. For scald injury the ratios are 2.3, 1.7, and 2.8 respectively.

For road injuries as passengers and pedestrians the hospitalisation rates for Aboriginal children are generally about twice that for non-Aboriginal children.

There are major differences between the two populations in the incidence of self harm but these do not show up until about age 14. The difference is significant for self harm deaths. For example deaths of young Aboriginal males in jail or in police custody have been and are substantial. Although the rates of death in custody are broadly the same for all groups, the huge difference in incarceration rates make Aboriginal males deaths in custody, primarily from self harm, a major public issue in Australia. Incarceration rates for A&TSI youths aged 10–17 years are around 20 times the rate for other males the same age. In this age group Aborigines represent about 3% of the population but one third of prison inmates.

Interpersonal violence also shows major differences. Hospitalisation rates are 120.7 per 100 000 for those aged 0–4 years, 6.5 times the rate for non-Aboriginal children; 1621.55 per 100 000 for 15–19 year olds, 10 times the non-Aboriginal rate. The rates peak at 3147.99 for those aged 25–29 and from 25–40 are consistently about 20 times the rate for non-Aboriginals.

It is hoped that a future article will be able to report the development of substantial programs to address these issues.

IAN SCOTT
KIDSAFE Australia,
10th floor, 123 Queen Street,
Melbourne, Victoria 3000,
Australia

1 Flick B. Desperation but not despair: an Australian perspective on injury issues for indigenous peoples. Paper delivered to the Third International Conference on Injury Prevention and Control, Melbourne, Australia, 18-22 February 1996.
2 Moller J, Dolinis J, Cripps R. *Aboriginal and Torres Strait islander peoples injury-related hospitalisations 1991/92 — a comparative overview.* Adelaide: National Injury Surveillance Unit, Australian Institute of Health and Welfare, December 1996.
3 Harrison J, Moller J. Injury mortality among Aboriginal Australians. *Australian injury prevention bulletin.* Adelaide: National Injury Surveillance Unit, Australian Institute of Health and Welfare, No 7, September 1994.
4 Moller J. Understanding national injury data regarding Aboriginal and Torres Strait Islander Peoples. *Australian injury prevention bulletin.* Adelaide: National Injury Surveillance Unit, Australian Institute of Health and Welfare, No 14, December 1996.

Homicide rates among young New York women

A study of all the homicides in New York City from 1990 through 1994 in which the victim was a woman attracted substantial regional and national press coverage in the US this spring. The New York City Department of Health's (NYC-DOH) Injury Prevention Program conducted the study through a painstaking compilation of records from the Medical Examiner's Office and police reports on all 1159 female homicides in this time period.[1]

This study has ramifications for children in several ways. First, 9% of the women killed were adolescents, ages 16–19 years. The annual rate of homicide in this age group was 9.8 per 100 000, similar to rates among adult women up to the age of 39 (10.2 per 100 000), and age 49 (9.1 per 100 000) after which the overall rate declined to 3.8 per 100 000. The annual rate among NYC adolescent women is 40% higher than the annual homicide rate of females ages 15–24 in the US (6.9 per 100 000 in 1991). Despite the fact that the rate of homicide is substantially lower for females than males, the rate of female homicides in NYC is two to 30 times higher than annual rates of homicide to men ages 15 through 24 in 21 developed countries.[2] In addition to the adolescent deaths, 33 children and five grandchildren were also killed at the same time as the primary female homicide.

The racial distribution of the adolescents mirrored the distribution of the adult female victims in being disproportionately weighted toward black and Hispanic women. Annual rates per 100 000 were 13.8 for black female adolescents, 11.2 for Hispanic adolescents, and 1.4 per 100 000 white adolescents. The rate of homicides in black adolescent women in NYC is comparable with the annual rate of homicide in black women ages 15–24 in the US (14.2 per 100 000).

Twenty three per cent of the victims lived in households with children out of the 788 homicides in which the family composition was available. Thus between 180 and 550 children were affected by the loss of a household member, most often the mother. Furthermore, the report states that, 'Children witnessed homicides, were present in an apartment when a homicide occurred or found the victim's body in 9% (104) of all homicides'.

Aside from the sheer horror of these statistics, one aspect of this study that is striking is the similar geographic distribution of homicides and unintentional injuries in NYC. The female homicides were concentrated in poor, inner city neighborhoods, many of the same neighborhoods which earlier NYC-DOH reports identified as having the highest rates of fatal and hospitalized unintentional injuries.[3 4] To take two examples, out of the 10 neighborhoods with the highest rates of female homicides, 1990–4, seven also had the highest rates of hospitalization for pedestrian injury in 1990–2, and nine had the highest rates of hospitalization for burn injuries. These findings underscore the view that intentionality of injuries is a continuum, rather than a dichotomy; that the study of injuries categorized as intentional can shed light on injuries categorized as unintentional; and that poverty and social disadvantage create environments of high risk for all their residents, men, women, and children.

POLLY BIJUR
Albert Einstein College of Medicine,
Rose F Kennedy Center,
1410 Peckham Parkway South,
Bronx, NY 10461, USA

1 Department of Health. *Female homicide victims in New York City, 1990-1994.* New York: New York City Department of Health Injury Prevention Program, May 1997.
2 Fingerhut LA, Kleinman JC. International and interstate comparisons of homicide among young males. *JAMA* 1990; **263**: 3292–5.
3 New York City Department of Health. *Hospitalized injuries in New York City, 1990-1992.* New York: New York City Department of Health Injury Prevention Program, November, 1996.
4 New York City Department of Health. *Injury mortality in New York City, 1980-1990.* New York: New York City Department of Health Injury Prevention Program, 1995.

Injury in low income countries

The burden of injuries as a major health problem has been recognised in two reports released recently by the World Health Organisation (WHO) and the World Bank. *The Global Burden of Disease* edited by CJL Murray and AD Lopez and published jointly by WHO, the World Bank, and Harvard School of Public Health estimates that 10.7% of all deaths in the developing countries were due to injuries in 1990 as compared with 7.6% in the developed countries.[1] The estimates for years of life lost due to injuries as a per cent of the total are reported to be 16% in established market economies, 20% in China, 11% in India, and 14% in other Asian countries. An ad hoc committee on health research relating to future intervention options established under the auspices of the WHO has published a report *Investing in Health Research and Development*.[2] One of the conclusions of the report is that 'the burden due to injuries could equal that due to communicable diseases world-wide by 2020. In several developing regions including China, and Latin America and the Caribbean, injuries are expected to exceed communicable diseases'.

The committee recommends that a special programme or initiative for research, training, and capacity building on injuries should be set up to focus on issues in low income countries.

National governments of most Asian countries have not initiated any major injury control programmes. It is possible that the publication of these reports and associated changes in policies of international organisations would help researchers and health professionals in Asian countries to put pressure on their respective governments to give more importance to injuries as a health problem. However, it will not be very easy to come up with ready made solutions and countermeasures. Road traffic, work practices, and housing patterns in low income countries are different from those prevalent in high income countries. The situation in many low income countries is much more complex than that in those with a high income because of high income differentials and uses of modern technologies along with traditional ones. For example, London has never experienced the traffic patterns prevalent in Beijing today. Therefore, it is very necessary for professionals in low income countries to do a great deal of original work to come up with countermeasures that are feasible and suit these new conditions. International collaboration to share ideas and experiences would certainly help along with training courses in basic principles of injury control.

DINESH MOHAN
Centre for Biomedical Engineering and WHO Collaborating Centre, Indian Institute of Technology, New Delhi 110016, India

1 Murray CJL, Lopez AD, eds. *The global burden of disease: a comprehensive assessment of mortality and disability from diseases, injuries and risk factors in 1990 and projected to 2020*. Cambridge, MA: Harvard University Press, 1996.
2 Ad Hoc Committee on Health Research Relating to Future Intervention Options. *Investing in health research and development*. Geneva: World Health Organisation, 1996.

Southern African report

The editorial in a recent issue of the *Lancet* related the United Nations' (UN) renewed efforts to resurrect basic living standards in sub-Saharan Africa. Certainly the current statistics are enough to sadden and shock even the toughest 'aid' worker. No access to clean water for 52% of Africans, 68% without proper sanitation, 50 million children with protein energy malnutrition, maternal mortality rates of 62–1000 per 100 000 live births — the list goes on. Not so much a 'dark' continent any longer, Africa seems rather to have become invisible to the captains of international industry and other investors who cite political instability, shaky infrastructure, and rampant corruption as justifiable reasons for their reticence. The UN System-wide Special Initiative on Africa lauched in 1996 will include initiatives to support, among other priorities, education, health, security, and informatics throughout the poorest regions of Africa. This undertaking is fuelled by an operating budget of $25 billion, and might be the continent's best (and last) opportunity to climb out of the abyss. Might Africa even become a SAFE place for children?

Against this background, the 18th African Health Sciences Congress held in Cape Town in April predictably featured a cornucopia of health issues, from dental caries in city children to the control of camel trypanosomosis. Interest in both intentional and non-intentional injury was well represented in paper and poster form, but virtually all reports were curiously open ended as far as appropriate safety solutions and implementation were concerned. In discussion, many delegates expressed both a common yearning for better, representative injury data, and desperation at lack of resources to realise safety initiatives. By sheer coincidence, a paper presented in a parallel session and entitled 'Health Information Systems — the Megalomanic Options' took a sour view of obscenely expensive Western-style information systems which have failed to play any meaningful role in Southern Africa. Senior author Arthur Heywood who lectures at the University of Western Cape School of Public Health made a plea for 'more elementary and locally relevant information systems using a participatory process at local and district levels'. Any African injury researcher would do well to set their sights slightly lower, accumulate representative local data, and avoid the temptation to describe or quantify injury on a national scale.

A draft report from the Safe Packaging Conference held earlier this year in Cape Town includes a list of recommendations aimed at protecting children from hazardous substances locally available. These include lobbying for tighter government legislation on safe packaging, labelling and classification, creation of a national database on accidental poisoning, preservation of existing poison information centres (recent victims of health service rationalisation), and industry safety regulations. Any reader who would like a full copy of the document is welcome to write to me at the address below.

The University of South Africa Health Psychology Unit hosted a training course in injury control and violence prevention in March, attracting health workers from Maputo and Zimbabwe as well as South Africa. Delegates had the benefit of being guided in basic principles by Professor Dinesh Mohan and Dr Geetam Tiwari, both of the Indian Institute of Technology, and who acted as coordinators and primary trainers. Issues highlighted during discussion and consequently identified for long term action included the establishment of a Southern African Injury and Violence Control Network — an exciting and overdue initiative, and one of which I shall provide some details in my next report.

DAVID BASS
Acting Director, CAPFSA; Department of Paediatric Surgery, Red Cross Children's Hospital, Rondebosch 7700, South Africa

LETTERS TO THE EDITOR

More Safe Communities programs in Scandinavia have been evaluated: repeating the results from Falköping

EDITOR, — The first Safe Community program that we know of so far was developed in the municipality of Falköping, Sweden. The ideas behind the program were taken up by communities in countries like Norway, Denmark, France, the UK, Canada, Australia and New Zealand, among others. Independently, programs were developed in countries like Thailand, Indonesia, and later South America.

Much of the success in spreading the safety promotion idea was that the program descriptions were able to point to evaluations of effects, sometimes related to processes. Lothar Schelps' academic thesis was based on an injury surveillance that started in 1978. The program showed a 27–28% reduction of injuries in the transport, home, and industrial safety areas in 1981. In the control areas there were no effects!

The idea was picked up in Norway, and the Vaeroy study was not only able to repeat the effects from Falköping, but also to show an extensive long term effect with 58% reduction after eight years.[2] Further programs in Sweden were also evaluated. For example in Lidköping, a study on child injuries showed, on average, a 2.1% (boys) to 2.4% (girls) annual decrease of injuries leading to hospital admissions from 1983 to 1991.[3]

In 1995, another doctoral thesis was released, this time from the University of Troms, Norway.[4] It is based on five papers from international journals, focusing on effects of intervention over up to eight years from the Harstad Injury Prevention Study. Burns were reduced by 53%, transport injuries by 27%, fall fractures by 26%, and downhill skiing injuries by 15%. The corresponding injury rates increased in the control area (Trondheim) for traffic and fractures seemed to be unaltered for burns in children.

In February 1996, during the Third International Conference on Injury Prevention and Control in Melbourne, Australia, the Danes showed their first data from the 5-Community-Project (presentation by B Frimodt-Moeller, Injury Surveillance Unit, National Board of Health, Copenhagen). During 18 months in 1990–2, in the intervention areas home and play injuries among children 0–5 years were reduced by 8%, and bicycle injuries in 6–16 years by 54%.

Thus, different Scandinavian countries appear to have achieved astonishing results attacking injury problems at the local com-