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:

- Aboriginal 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 motor vehicle injury;
- For interpersonal violence the indigenous hospitalisation rate is 17 times higher than the non-indigenous community.

Falls: fall hospitalisations are the highest cause of hospitalisation for all age groups, other than those aged 0–4, and are higher for both boys and girls (495 and 500 per 100,000). Hospitalisation 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 scalds 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 examination of incidence in incarcerated rates makes 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.

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


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 affected 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

The study has implications 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 5% higher than the annual homicide rate for females ages 15–19 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 three 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 females. Homicide 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 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 that occurred in NYC during the period. This was substantially higher than the average rate for all states (14%).3 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 and 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.4 To take two examples, over the six years of the study 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 burns. These findings support the view that intentionalty 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 BJUR
Albert Einstein College of Medicine, Rose F Kennedy Center, 1410 East 161st Street, Bronx, NY 10461, USA

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 Organization (WHO) and the World Bank. The Global Burden of Disease edited by C. J. L. 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 reveal that 42.2% 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'.3

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 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


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 could go on. '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 inflation and unemployment as reasons for their reticence. The UN System-wide Special Initiative on Africa launched in 1996 will include initiatives to support, among other priorities, education, health, rural development, and human resources. 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 1997 was an attempt to define and confront the health issues, from dental caries in city children to the control of camel trypanosomiasis. Interest in both intentional and non-intentional injury was well represented in the papers and posters. Health researchers 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 Megalomaniac Options4 took a tour view of obscurely 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 seriously consider this option, to 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 industrial use safer 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 is running a training course in injury control and violence prevention in March, attracting health workers from Maputo and Zimbabwe as well as South Africa. Delegates have 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 consequentely identified for long term action included the establishment of a Southern African Injury and Violence Control Network, and one of which I shall provide some details in my next report.

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

LETTERS TO THE EDITOR

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

EDITOR, — The first Safe Community program that we know of so far was developed in Falköping, Sweden.2 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. Independent projects 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 description was available to potential evaluators. Safe Communities ideas might be related to the method of Lothar Schelp's academic thesis was based on an injury surveillance that started in 1978.3 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.4

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.5 Further programs in Sweden were also evaluated. For example in Lidköping, a study on child injuries showed similar effects.6

In 1995, another doctoral thesis was released, this time from the University of Troms, Norway.1 It is based on findings from international journals, focusing on effects of intervention over up to eight years from the Harstad Injury Prevention Study.7 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 (Trondhein) for traffic and fractures seemed to be unaffected.

In February 1996, during the Third International Conference on Injury Prevention and Control in Melbourne, Australia, the Danish showed their first data from the 5-Community Project. At the Swedish National Institute of Public Health, the Injury Surveillance Unit, National Board of Health, Copenhagen, the effect of the program was found to be reduced by 60% between 1981 and 1991.8

More recently, David Bass has pointed out on 10/13/97 at 3:39 PM that one of the benefits of the Safe Communities program in Sweden was that it attracted funding from the municipality of Falköping, Sweden. This might explain the longer duration of injury reduction in the safe community areas compared to the control areas.

In summary, the Safe Communities program offers a number of benefits that might be useful in other countries, including a reduction in injury rates of 27–28% in the transport, home, and industrial areas, and a longer duration of injury reduction in the safe community areas compared to the control areas. Further research is needed to evaluate the long term effects of the Safe Communities program in other countries.