

Background information of road safety among Indigenous peoples

Introduction

Road deaths and injuries are a global problem of massive proportions. According to the World Health Organization, road traffic injuries are the leading cause of death by injury worldwide (one-fifth of all deaths from injury) and the tenth leading cause of all deaths (2.2% of all deaths). Road traffic injuries rank second to HIV/AIDS as the leading cause of ill health and premature death for adult men aged 15 - 44 years.

Road traffic injuries claimed an estimated 1,170,694 lives in 1998. Of this number, seven-eighth was in low-and middle-income countries and one-in-eight in high-income countries. Deaths per 100,000 people were 21 in low-and middle-income countries and 16 in high-income countries. The average global death rate due to road traffic injuries was 19 per 100 000 people in 2002.

Road traffic injuries involve issues of social equity, having a disproportionate impact on the poor in developing countries, where most victims are vulnerable road users (such as pedestrians, children, cyclists and passengers). As poorer members of society have less access to medical services, their chances of survival and recovery after crashes are also relatively lower.

Road traffic injuries also have disproportionate effects on young people. More than one-half of deaths worldwide occur among young adults aged between 15 and 44.

Males are almost three times more vulnerable than females: in 2002, the rates were 28 per 100,000 males and 10 per 100,000 females. As people in the age groups that are most economically active are also most affected by road crashes, this is an added burden on poorer countries attempting to tackle poverty and raise levels of economic growth.

CORE FUNDING



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More detailed information about road safety in Indigenous people can be found at:

http://www.healthinfolnet.ecu.edu.au/road_review

It is estimated that there are about 100 million families worldwide trying to cope with the death or disability of a family member involved in a road crash. The impact in terms of emotional and financial stress is enormous. Poverty, depression, physical illness and suicide are common consequences. Apart from the direct physical and psychological effects of injury on victims of road crashes, there are substantial impacts on their families and friends and on the community in general. The fear of traffic and of being involved in crashes can lead to reduced social interaction and cohesion as people remain indoors. In many countries, it has also resulted in more sedentary lifestyles, with consequent health effects such as obesity and cardiovascular disease.

Road trauma in Australia

In recent years, there have been around 1,700 road deaths and over 22,000 serious injuries in Australia each year. Over 171,000 lives have been lost in road crashes in Australia - compared with the 100,000 Australians killed in the wars in which Australia has been involved since the beginning of the twentieth century. According to the Australian Bureau of Statistics, road injury was responsible for around 1.4% of deaths in Australia in 2003. Road crashes contributed 23% to deaths classified as being due to 'external causes' (accidents, poisonings and violence).

As in other countries, a key feature of deaths due to road crashes is their greater impact on overall loss of life because they occur much more frequently among younger people. Road crashes were responsible for just over 2% of total deaths in Australia around 1991, but they accounted for almost 7% of years of life lost through all causes of death - more than years lost through stroke or lung cancer.

The economic cost of crashes has been estimated by the Bureau of Transport and Regional Economics (BTRE) to be in the order of \$15 billion in 1996 - an amount equivalent to Australia's total annual defence budget. This figure translates to over \$750 per year for every man, woman and child in Australia.

More than one-half the total cost of crashes (56%) are 'human' costs, meaning that they involve costs directly related to crash victims, such as lost output, long-term care and rehabilitation and lost quality of life. Every day, road crashes cost the Australian community over \$41 million, of which \$23 million represents human costs.

Optimism bias

Road crashes are commonly thought of as only happening to other people. Many people consider themselves better than average drivers, and, despite the various risks they encounter on the roads,

may have crash-free records for long periods. Such experience, together with actual observations of crashes experienced by others and news media reports of such crashes, reinforce the notion that crashes only happen to other people. Such a notion often leads people to underestimate their risks and to sometimes neglect precautionary actions (such as seat belt wearing).

Behavioural factors: the fatal five

Speed

Speed is identified as one of the most important issues in road safety, although certainly not the only issue requiring attention. Speed affects both the risk of a crash and the severity of any crash that occurs - including crashes caused by factors other than speed. There is evidence from an extensive body of research that even small reductions in vehicle speeds result in a marked reduction in the number of road fatalities and serious injuries.

Occupant protection measures

Occupant restraint systems, notably seat belts and airbags, have been proven to save lives and reduce injuries. Seatbelts

It is widely accepted that the use of seat belts in motor vehicles substantially reduces the incidence of death and serious injury in crashes.

Airbags

Head injuries are a major cause of death and serious injury in crashes. Head injuries to car occupants account for nearly one-half of all injury costs associated with passenger car crashes in Australia. The airbag is a supplemental restraint system and is not a substitute for a seat belt - they are meant to be used in combination with seat belts. If a crash occurs, the airbag is meant to reduce the vehicle occupants' speed to zero, while minimising injury.

Headbands for vehicle occupants

Research commissioned by the former Federal Office of Road Safety and the Australian Transport Safety Bureau has demonstrated that headwear in the form of bicycle-style helmets or padded headbands would be almost as effective in reducing head and brain injuries as driver airbags, but at a fraction of the cost. Prototype headbands have been tested using a variety of materials.

Substance abuse

Research has consistently shown that driving skills are impaired at blood alcohol concentration (BAC) of around 0.05 gm/100 ml. Performance impairment has been shown in the laboratory for

alcohol on tasks such as concentration, divided attention and reaction time. In Australia, alcohol remains one of the biggest single causes of road deaths and injuries, even though significant reductions in drink driving have been achieved over the past decade.

As well as alcohol, a number of drugs (both legal and illegal) have the potential to increase the risk of road crashes. Many of these drugs have been shown to impair performance on driving-related tasks in laboratory tests, driving simulators, and in 'off road' and 'on road' studies. There are also concerns that some drugs, including amphetamines, can be associated with aggressive driving, and (when used to combat extreme fatigue) increase the risk of quite sudden onset of sleep.

Fatigue

Driver fatigue or tiredness contributes to hundreds of deaths and injuries on Australian roads each year. Driver fatigue can be just as deadly as drink driving or excessive speed. The problem with fatigue is that it often develops slowly, and drivers may not realise that they are too tired to drive safely.

Distraction

Driving is a complex task and requires the use and coordination of various skills, including those in the physical, cognitive and sensory areas. However, despite the obvious need for high levels of concentration and attention, drivers engage in various other activities while driving (such as smoking, conversing with passengers, adjusting the controls of audio equipment, using mobile phones, shaving, applying cosmetics, reading and writing).

Australian road safety strategy

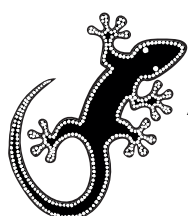
Several nations, including Australia, have national strategies and associated fatality reduction targets. The target of Australia's strategy is to reduce the annual number of road deaths by 40% - from 9.3 per 100,000 people in 1999 to no more than 5.6 per 100,000 people in 2010. The target is expressed in relative terms (that is, 'no more than') implying that road deaths are neither inevitable nor acceptable.

In Australia's federal system of government, road safety strategy and policy measures are principally the responsibility of the States, Territories and local governments who conduct their own road safety programs. The role of the Australian Government and its agencies includes funding major road programs and the treatment of black spots; regulating new vehicle standards; research; compilation and analysis of national statistics; and facilitating the sharing of ideas and information among stakeholders.

The Road Safety Strategy provides a framework for coordinating and complementing the road safety initiatives of all levels of government and of others capable of influencing road safety outcomes. Individual governments and others will continue to develop and implement their own road safety strategies and programs consistent with this strategy, but reflecting local imperatives.

The Australian Transport Council (ATC) agreed that a series of biennial action plans should be developed, setting out specific measures to achieve the objectives of the strategy. Each action plan was to be reviewed toward the end of its two-year period and a further action plan developed and submitted for the approval of the ATC. The development of action plans for 2001 and 2002, for 2003 and 2004, 2005 and 2006 and for 2007 and 2008 was coordinated by the Australian Transport Safety Bureau through the National Road Safety Strategy Panel and approved by the ATC.

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Australian Indigenous HealthInfoNet

The Australian Indigenous HealthInfoNet is an innovative Internet resource that contributes to 'closing the gap' in health between Indigenous and other Australians by informing practice and policy in Indigenous health.

Two concepts underpin the HealthInfoNet's work. The first is evidence-informed decision-making, whereby practitioners and policy-makers have access to the best available research and other information. This concept is linked with that of translational research (TR), which involves making research and other information available in a form that has immediate, practical utility. Implementation of these two concepts involves synthesis, exchange and ethical application of knowledge through ongoing interaction with key stakeholders.

The HealthInfoNet's work in TR at a population-health level, in which it is at the forefront internationally, addresses the knowledge needs of a wide range of potential users, including policy-makers, health service providers, program managers, clinicians, Indigenous health workers, and other health professionals. The HealthInfoNet also provides easy-to-read and summarised material for students and the general community.

The HealthInfoNet encourages and supports information-sharing among practitioners, policy-makers and others working to improve Indigenous health – its free on line yarning places enable people across the country to share information, knowledge and experience. The HealthInfoNet is funded mainly by the Australian Department of Health and Ageing. Its award-winning web resource (www.healthinfonet.ecu.edu.au) is free and available to everyone.

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FEATURED ARTWORK

Kangaroo warning
road sign, NT, Australia

by Ocean Photography

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