National Health Priority Areas

1997

Commonwealth Department of Health and Family Services

Injury Prevention and Control

AIHW
AUSTRALIAN INSTITUTE OF HEALTH & WELFARE

National Health Priority Areas Report

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Commonwealth Department of Health and Family Services
Australian Institute of Health and Welfare

AIHW Cat. No. PHE 3

ISBN 0 642 367 167

Commonwealth Department of Health and Family Services and Australian Institute of Health and Welfare 1998. National Health Priority Areas Report : Injury Prevention and Control 1997. AIHW Cat. No. PHE 3. Canberra : DHFS and AIHW.

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Editing and production by Elizabeth Hall & Associates, Canberra

Desktop publishing by Barnes Desktopping and Design, Canberra

Cover design by Miller Street Studio, Canberra

Publications Approval Number 2327

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Acknowledgements

Thanks are also due to the following for their assistance in preparing this report: Melanie Brown, Michael de Looper, Carolyn Merton, Christopher Stevenson, Ian Titulaer and Phil Trickett (AIHW).

Executive summary

This report on injury prevention and control is one of a series of biennial reports to Australian Health Ministers on each of the five National Health Priority Areas (NHPAs). It is part of a process that involves various levels of government and draws on expert advice from non-government sources, with the primary goal of reducing the incidence and impact of injury in Australia.

Overview of injury in Australia

Injury profile

Injuries resulted in over 7,000 deaths in 1996 and nearly 400,000 hospitalisations in 1995–96. Direct medical costs attributable to injury were estimated to be $2,607 million in 1994 alone.

Suicide and transport-related accidents are the major causes of injury mortality while falls are the major cause of hospitalisation due to injury. The pattern of injury varies significantly with age; for example, near-drowning and drowning are major causes of injury and death in early childhood, self harm and road crashes are primary causes of injury in young adulthood, and falls are the most common cause of injury death among the elderly. Males, Indigenous Australians and rural dwelling residents are all at increased risk of injury. In addition, mortality rates are greater for young adults and the elderly than for Australians of other ages.

In 1994, deaths attributed to unintentional injury accounted for 14.7 per cent of all years of potential life lost (YPLL) before the age of 75 years, while suicide accounted for another 8.6 per cent of YPLL. Injury impacts most on the young, resulting in an average 32 YPLL before age 75 compared with nine YPLL for cancer and five YPLL for ischaemic heart disease.

There has been a long-term decline in overall injury mortality in Australia, particularly from road injury. The substantial reduction in the road injury rate since 1970 can be attributed to effective road safety programs.

Injury as a national health priority

Injury was first recognised as a national health priority in 1986. Subsequently, national goals and targets were devised for reducing the incidence and impact of injury on health, and the NHPAs initiative continues to build on these goals and targets.

The health sector's role in injury is to: plan and implement prevention strategies to reduce the incidence of injury; provide treatment and rehabilitation for those affected by injury; identify priority issues by collecting and analysing relevant data; and promote intersectoral cooperation on injury issues.

Progress towards national goals and targets

This report documents progress on 20 indicators designed to measure the effect of interventions in injury on the health of Australians. Over the past several years, there has been progress towards national health targets in a number of areas. In particular, there has been a reduction (or a slowing of a previous upward trend) in injury mortality for the total population and for a number of specific causes of death including road transport, falls, and fire, burns and scalds in older people, homicide deaths in females aged 20 to 39 years, and drowning in early childhood. However, there has been little progress towards reducing the high rate of male

compared with female injury mortality, or the death rate from assault among young children. In addition, current trends indicate that the Year 2000 target for reducing the death rate ratio for Indigenous compared with non-Indigenous populations may not be reached.

Infrastructure developments

Prevention

Injury is preventable and primary prevention is the best means of injury control. At the State and Territory level, there have been a number of successful injury prevention programs. Key areas of focus for these efforts have been road crashes, and more recently, scalds and falls in the elderly. A number of States and Territories have developed strategic plans for injury prevention and control.

Within the health sector, the Commonwealth Department of Health and Family Services has prime responsibility for national coordination of injury prevention and control activities. The National Injury Surveillance Unit (NISU) of the Australian Institute of Health and Welfare has also played an active role at the national level.

A number of organisations are involved in prevention activities for specific groups at the national level, including Farmsafe Australia, the Australian Agricultural Health Unit, the Child Accident Prevention Foundation (Kidsafe) and the Australian Sports Commission.

Trauma care

Ensuring access to optimal trauma care services is an important means of improving health outcomes in the area of injury prevention and control. Guidelines for trauma services, published by the Australian Council on Healthcare Standards (ACHS) with the support of the Commonwealth Department of Health and Family Services, provide practical guidance in the application of ACHS standards and criteria to trauma services, and encourage best practice in trauma care. Overall, there has been considerable improvement in systems for trauma retrieval and management in the States and Territories over the past few years. The majority have established State or Territory-wide trauma plans and trauma management committees. Most have included or are in the process of including rural areas in their trauma plans. Moreover, a number of States and Territories have developed or are developing trauma management data collections and performance indicators, and many have developed state-of-the-art resources and systems which could provide models for other areas.

Rehabilitation

Increasing access to comprehensive rehabilitation programs is one means of improving injury outcomes. Currently, rehabilitation services are provided by a mix of public (State and Commonwealth funded) services and private services.

The Commonwealth Rehabilitation Service (CRS) is the major national structure delivering vocational rehabilitation services for those who have sustained an injury. An analysis of the composition of the CRS client base suggests that although CRS has an important role in rehabilitation, it is likely that gaps exist in the rehabilitation coverage of injuries occurring outside the road and work-related sectors, even for people of workforce age.

While a systematic review of the diverse range of rehabilitation services provided by State and Territory and private providers is not given in this report, it appears that there are gaps in rehabilitation services for certain groups, particularly children, the elderly injured at home, those outside the workforce with non-compensable injuries, those with less serious brain injury, and those living in rural areas. Lack of coordination of rehabilitation services remains an important problem. Finally, although there has been some work on standards and quality assurance in rehabilitation, there is currently no over-arching benchmark that can be used to define standards of care and levels of outcome across the spectrum of rehabilitation services. Such standards would provide a device for assessing the effectiveness of current rehabilitation services and equity of access to quality care.

Research funding

The National Health and Medical Research Council (NHMRC) is the principal government research planning and funding body in the health sector. In 1997, $2.35 million, or 1.6 per cent of NHMRC research expenditure was in the field of injury research. The Strategic Research Development Committee of the NHMRC is currently examining the level and appropriateness of funding for injury research.

In 1993, it was estimated that the total road safety research and development budget in Australia was $14.4 million (Road Safety Researchers' Forum 1993). Workers' compensation insurance bodies, which are the major source of research funding for the area of occupational health and safety, provided approximately $5 million in external research funding in 1996–97.

It is clear that most research expenditure occurs in the areas of road and occupational safety. Although other areas of injury account for approximately 40 per cent of deaths and disability due to injury, research funding for those areas is relatively low.

Barriers and gaps in injury prevention

Although a number of important initiatives have been undertaken in the injury prevention and control area, injury prevention has not received the policy recognition or level of resources received by other significant public health issues. Policy development is fragmented and the lines of responsibility for injury prevention are not clearly defined. There are gaps in the following areas:

- intersectoral links, where there is a paucity of formal structures to facilitate cooperation between sectors on injury prevention;
- delivery infrastructure, where the lack of a coordinated plan of action and appropriately trained personnel limits the systematic development and implementation of programs;
- strategic planning, where there is a need for effective strategies for communicating details of successful projects, linking research and surveillance to practice, and building a mechanism for the continual upgrading of policy;
- training opportunities, infrastructure and capacity; and
- research, where there are gaps in evidence concerning the effectiveness and relative cost-effectiveness of different countermeasures, exacerbated by a lack of appropriately trained researchers and adequate national data collection systems.

Opportunities and future directions

There is increasing recognition of the opportunities within government to improve the implementation of injury prevention and control initiatives. Such opportunities could include:

- introducing processes to ensure that research, policy and implementation are properly linked;
- using the National Injury Prevention Strategy being developed by the Commonwealth Department of Health and Family Services, in consultation with State and Territory Governments and the National Injury Prevention Advisory Council (NIPAC), in order to address the fragmentation in services noted above;
- improving the level of training and available expertise in injury by establishing a solid base of research expertise in at least two universities and incorporating injury prevention coursework in the curricula of health management, policy promotion and public health courses;
- advancing injury data collection systems by: accelerating the introduction of uniform emergency department surveillance; establishing a National Coroners Information System (NCIS); establishing national sports injury data collections and reporting systems; establishing registers of serious injuries; and developing standardised indicators that permit comparison of an intervention in different settings;
- establishing a series of standard indicators to reflect the burden of different types of injuries and to provide interim outcomes of the impact of major intervention programs;
- establishing a mechanism for intersectoral cooperation, including strategic alliances to address issues in young males, Indigenous peoples, rural and remote areas, interpersonal violence and alcohol misuse;
- implementing known effective prevention strategies and evaluating promising implementation strategies for significant problems;
- increasing the involvement of professional groups including specialist medical colleges and the Australian Injury Prevention Network in the planning and implementation of injury prevention strategies;
- funding injury prevention programs, providing funding for research in the area of injury, and ensuring that mainstream funding arrangements provide incentives for coordinated care responses rather than inappropriate early hospital discharge;
- using legal levers to reduce injury rates (eg the introduction of mandatory safety standards such as the Australian standard for cots);
- continuing to establish and develop intersectoral trauma committees and trauma plans in all States and Territories and improving information sharing between States and Territories of existing state-of-the-art resources and processes in trauma management and data systems;

- exploring the scope for expanding rehabilitation services provided by the Commonwealth to cover on a needs basis, all ages and all causes of injury; and
- developing and implementing a standards, protocols and quality assurance mechanism for rehabilitation services in Australia.

The newly formed NIPAC is well placed to assist in improving intersectoral mechanisms, policy development, training and staffing. It can also provide expert advice concerning funding and levers for change, and will be a valuable source of advice on the mechanisms for determining research priorities in injury. The Strategic Research Development Committee of the NHMRC provides a mechanism for developing a strategic approach to funding identified injury prevention and control research activities. Finally, the NHMRC and the Australian Council on Healthcare Standards provide a means for developing guidelines for protocols and quality assurance across rehabilitation services.

Introduction

Background

This report on injury prevention and control is one of a series of biennial reports to Australian Health Ministers on each of the five National Health Priority Areas (NHPAs) — cancer control, injury prevention and control, cardiovascular health, diabetes mellitus and mental health. A report has been released recently on cancer control. Reports on cardiovascular health, diabetes and mental health will be published in 1999.

Although each report targets a group of discrete diseases or conditions, and the recommended strategies for action are often specific in nature, the NHPA initiative recognises the role played by broader population health initiatives in realising improvements to the health status of Australians. Public health strategies and programs that target major risk factors may benefit several priority areas. For example, programs aimed at reducing alcohol consumption not only reduce the incidence of injury but may also have an impact on the other NHPAs. Programs that are designed for particular settings and 'at-risk' groups (for example males aged 15–29 years) can also provide an opportunity to address a range of risk-taking behaviours which might have a beneficial impact on other NHPAs.

This report on injury prevention and control is part of an encompassing NHPA process that involves various levels of government and draws on expert advice from non-government organisations, with the primary goal being to reduce the incidence of, mortality from, and impact of injury on the Australian population.

The National Health Priority Areas initiative

Based on current international comparisons, the health of Australians is among the best in the world and should continue to improve with continued concerted efforts across the nation. The NHPAs initiative emphasises collaborative action between Commonwealth and State and Territory Governments, the National Health and Medical Research Council (NHMRC), the Australian Institute of Health and Welfare (AIHW), non-government organisations, appropriate experts, clinicians and consumers. It recognises that specific strategies for reducing the burden of illness should be holistic, encompassing the continuum of care from prevention, through to treatment, management and maintenance, and underpinned by evidence based on appropriate research.

By targeting specific areas that impose high social and financial costs on Australian society, collaborative action can achieve significant and cost-effective advances in improving the health status of Australians. The diseases and conditions targeted through the NHPA process were chosen because they are areas where significant gains in the health of Australia's population can be achieved.

From National Health Goals and Targets to National Health Priority Areas

The World Health Organization (WHO) published the *Global Strategy Health for All by the Year 2000* in 1981. In response to this charter, the *Health for All Australians* report was developed and represented Australia's 'first national attempt to compile goals and targets for improving health and reducing inequalities in health status among population groups' (Health Targets and Implementation Committee 1988). The 20 goals and 65 targets focused on population groups, major causes of sickness and death, and risk factors.

A revised set of targets was published in 1993 in the *Goals and Targets for Australia's Health in the Year 2000 and Beyond* report (Nutbeam et al 1993).

Goals and targets were established in four main areas — reductions in mortality and morbidity, reductions in health risk factors, improvements in health literacy, and the creation of health-supportive environments. However, this framework was not implemented widely.

The *Better Health Outcomes for Australians* report was released in 1994, and refined the National Health Goals and Targets program. The focus of goals and targets was shifted to four major areas for action — cancer control, injury prevention and control, cardiovascular health, and mental health. As a corollary to this, Australian Health Ministers also adopted a national health policy which committed the Commonwealth and State and Territory Governments to develop health goals and targets in the priority health areas and re-orient the process towards population health.

In 1995, it was recognised that there were a number of fundamental shortcomings of the National Health Goals and Targets process, principally, that there were too many indicators (over 140 across the four health priority areas), there was a lack of emphasis on treatment and ongoing management of the disease/condition, and there was no national reporting requirement. In implementing a goals and targets approach, emphasis was placed on health status measures and risk factor reduction. However, no nationally agreed strategies were developed to promote the change required to reach the targets set.

This led to the establishment of the current NHPAs initiative. Health Ministers agreed at their July 1996 meeting that a national report on each priority area be prepared every two years, to give an overview of their impact on the health of Australians. These reports would include a statistical analysis of surveillance data and trends for a set of agreed national indicators. It was also agreed that diabetes mellitus become the fifth NHPA.

The *First Report on National Health Priority Areas 1996* (AIHW & DHFS 1997) provided a consolidated report on programs in all the priority areas.

Development of the report

The National Health Priority Committee (NHPC) developed this report in consultation with the Commonwealth and State and Territory Governments, the AIHW through its National Injury Surveillance Unit (NISU), and with a wide range of those active in the injury prevention and research fields.

Purpose and structure of the report

This report on injury prevention and control builds on the *First Report on National Health Priority Areas 1996*. The *First Report* provided baseline data and underlying trends in the five NHPAs. This report updates these data and trends, in addition, reporting on progress in the field of injury, and identifying opportunities for improving injury prevention and control.

Chapter 1 provides an overview of injury in Australia, including the current extent and cost of the problem, the main causes of injury, the groups most at risk of injury, long-term trends in injury over time, and comparisons of the rate of injury in Australia with those of other OECD countries.

Chapter 2 summarises the current status of NHPA injury prevention and control indicators for which adequate data were available for reporting in 1997.

Chapter 3 reviews infrastructure and program developments in the field of injury in Australia. In particular, it reports on progress in injury prevention, trauma care, rehabilitation services and research funding.

Chapter 4 looks at issues in injury prevention and control, including groups and areas that are important targets for preventive activity in the future, barriers and gaps in the areas of injury prevention, and interventions available for implementation.

The report concludes with a consideration of possible strategies for improving injury prevention and control in the Australian context, and a blueprint for action which builds on Australia's record in the area of preventive strategies (Chapter 5).