Chapter 4

Issues in injury prevention and control

4.1 Emerging and topical issues

A number of emerging issues in injury require collaborative action. These include: the continuing over-representation of young males in injury statistics; patterns of injury and prevention in Indigenous peoples; extent and pattern of injury in rural and remote areas; interpersonal violence; and alcohol misuse.

Young males

The NHMRC report, *Unintentional Injury in Young Males 15–29 Years*, reported patterns of injury similar to those discussed in Chapter 2 (NHMRC 1997a).

There is a paucity of evidence on countermeasures that specifically address injuries in young males, or those that address risk taking and other factors. Most of the evidence for successful interventions is drawn from research into motor vehicle accidents, with significant gaps in the identification of such successes for other important causes of death.

The NHMRC report recommended that there should be:

- increased efforts to develop and evaluate interventions effective in preventing injury to young males;

- implementation and evaluation of prevention strategies for which there is some evidence of effectiveness;

- greater intersectoral cooperation in the development and implementation of injury prevention programs for young males;

- greater interaction between agencies involved in injury prevention and the alcohol and drug field; and

- a more coordinated approach to prevention strategies aimed at unintentional injury, self harm and injury due to interpersonal violence.

The recommendations will be referred to the NIPAC for consideration and advice to the Commonwealth Department of Health and Family Services.

Interpersonal violence, self harm and firearms

The massacre at Port Arthur, and the quick response of governments, focused attention on the issue of firearms safety. Public health workers were active in providing information and assisting the policy development process. The final package of measures demonstrated how the Medicare levy could be used to finance injury prevention strategies. The gun buy-back scheme not only reduced the number of weapons capable of rapid mass killing in the community, but also sent important signals about the place of firearms in Australian society. It is likely that further gains can be made with appropriate health sector involvement.

Issues in injury prevention and control

In February 1997, the Commonwealth Department of Health and Family Services convened a meeting of public health and other researchers and policy makers to consider ways of maintaining the impetus toward greater firearm safety. NIPAC will consider the recommendations of this meeting and provide advice to the Commonwealth Department of Health and Family Services. Three of the recommendations of were that:

- public health strategies on firearms should be developed in the context of violence as a whole;

- it should be recognised that the presence of a firearm in a domestic situation can increase the likelihood of a violent or self harm response, and strategies for reducing exposure to firearms, especially at times of stress, should be developed; and

- local public health and health promotion units should become involved in encouraging compliance and supporting the enforcement of the gun laws, and should participate in community education on health risks associated with gun availability.

While the firearm issue has taken centre stage, the more general issue of inter-personal violence and self harm should not be hidden. A large majority of firearms deaths are self inflicted. Two major programs that affect these issues have been developed. These are the National Campaign against Violence and Crime and the National Youth Suicide Prevention Strategy.

The National Campaign against Violence and Crime has received $13 million of Commonwealth funds to:

- develop national crime prevention projects on burglary, domestic violence, fear of crime and working with young people to prevent crime and violence;

- evaluate crime and violence prevention programs, research into crime and violence within certain communities and the experience of the more vulnerable;

- conduct community education and public awareness programs to help individuals and organisations create safer communities;

- provide training programs to ensure the skills of crime prevention practitioners; and

- inform Australians of best practice in successful crime prevention strategies.

This initiative has been developed mainly within the Attorney General's Department and although it directly relates to issues in which the health sector has a great interest and has been actively working, health sector involvement is peripheral.

Domestic violence and child abuse and neglect are among the most prevalent forms of interpersonal violence. However, they are often overlooked within the health planning process due to a paucity of data describing the problem and because domestic violence and child abuse are traditionally managed outside the health sector. Typically, reporting of this form of interpersonal violence is confined to deaths. In addition, a significant number of deaths from child abuse, including poisoning and neglect, are not reported as homicide. As a result, only a fraction of the problem is being considered. With a growing body of evidence concerning effective prevention initiatives in child abuse and neglect in particular, this area of injury prevention is emerging as relevant to health sector planning.

The National Youth Suicide Prevention Strategy targets the prevention of suicide among young persons. Commonwealth funding amounting to $31 million has been allocated to the strategy for the four-year period 1995–96 to 1998–99. The strategy includes:

- the trial and evaluation of improved processes for early identification of persons at risk;

- education of health and educational professionals about suicide and managing persons at risk;

- improvement of adolescent mental health programs and the treatment of depression; and

- the management of access to means of suicide.

Within the NHPAs process, self harm has been categorised as a mental health issue, and violence principally as a legal or criminal issue. If a population view is taken, it can be seen that similar groups are at the highest risk of self harm and violence. The same groups are at highest risk of accidental injury. Intervention strategies for each of these issues are targeting similar populations, but there is little formal coordination at policy and program management level.

Indigenous peoples

The AIHW and NISU have undertaken analyses of injury deaths and hospitalisation data for Indigenous peoples (Harrison & Moller 1994; Moller 1994; Moller 1996a; Moller 1996b; Anderson et al 1996). These have shown that:

- Indigenous peoples experience a much higher rate of injury (an average of three-fold higher) than other Australians;

- the differentials are greater for interpersonal violence; fire, burns and scalds; falls; and injury of undetermined intent;

- patterns of injury across the lifespan are sufficiently different among Indigenous peoples to warrant the development of specifically targeted interventions; and

- patterns of injury vary significantly for urban, rural and remote dwelling Indigenous peoples.

Work by the Cairns Tropical Public Health Unit and NISU has shown that routinely collected statistics tend to underestimate the size of the injury problem among Indigenous peoples (Gladman et al 1997). This project has involved the development of new methods of injury surveillance that balance quantitative and qualitative approaches. Local communities are now using the resulting data to address specific injury-related issues. The project revealed that:

- alcohol was a major factor in precipitating and maintaining interpersonal violence;

- the community council suffered a major conflict of interest as the manager of the local canteen, the enforcer of licensing provisions, and the provider of community benefits from the canteen profits;

- treatment services for injury were limited and levels of care differed from those available in more populated areas; and

- specific hazards could be identified for each community and were likely to be amenable to interventions acceptable to the local people.

The project has demonstrated that simple and relevant injury surveillance at the local level can stimulate preventive initiatives. Within six months of its completion, the project has led to:

• the commencement of planning for an alcohol management strategy for Cape York;

• a program of injury prevention for remote Indigenous peoples by Queensland Transport;

• a commitment among community leaders to develop further injury prevention strategies; and

• a commitment by health agencies in Queensland and New South Wales to replicate the project and initiate injury prevention strategies in other communities.

The injury experience of Indigenous peoples varies from community to community. It is unlikely, therefore, that generic injury prevention programs will be the most relevant in addressing the high rate of injury among Indigenous Australians. Prevention needs to be targeted according to the needs of the communities. In order to reduce the inefficiencies of complex negotiations by each community with many different sectors, local initiatives need to be complemented by the development of prevention strategies that are coherent across sectors.

Indigenous Australians perceive health not only as the 'physical wellbeing of the individual', but also as the 'social, emotional and cultural wellbeing of the whole community' (National Aboriginal Health Strategy Working Party 1989). Within the framework of this holistic concept of health, injury prevention involves a diverse range of issues ranging from substance misuse to social depression.

As noted above, recent NISU research has contributed to the development of injury prevention programs. It is anticipated that a number of the activities under the Commonwealth's Indigenous Emotional and Social Wellbeing Action Plan will also contribute to identifying good practice models for intervention.

Rural and remote populations

Clear evidence of higher injury rates in rural and remote areas has emerged over the last five years (Titulaer, Trickett & Bhatia 1997). Injury, cardiovascular disease and mental health were identified as key issues for rural health policy at the Rural Public Health Conference held in Adelaide in October 1997. Recent detailed work by the Australian Agricultural Health Unit, which has examined health differentials according to agricultural production type, has shown that rural and remote injury rates are far from homogenous (Fragar et al 1997). The study has also revealed that some people working in certain industries, and people living outside rural townships, experience particularly high rates of injury. Clearly, appropriate targeting of these groups is required. Rural areas also have higher rates of suicide, and have been targeted for particular attention by the National Youth Suicide Prevention Strategy.

Alcohol misuse

The role of the misuse of alcohol as a contributing factor to the frequency and severity of injury, has now been well documented. Its influence is particularly notable in interpersonal violence, road injury, injury to young males, drowning, sport and leisure injury, and occupational injury.

Separate strategies for dealing with alcohol misuse have been adopted by a number of sectors. The transport sector has conducted effective campaigns based on education and regulation with enforcement using random breath testing. The National Drug Strategy and domestic violence strategies within the health sector, have targeted alcohol misuse, especially binge drinking. Public health initiatives in some regions have focused on responsible serving of alcohol and the modification of licensed premises to reduce the incentive to misuse alcohol.

There is considerable potential for developing cooperative strategies that increase the effectiveness of the efforts of individual sectors. A combined approach across sectors could target, in a coordinated way, the population who misuse alcohol.

4.2 Barriers and gaps in injury prevention

Policy infrastructure

Although a number of important initiatives have been undertaken in the injury prevention and control area since injury was first recognised as a health priority more than 10 years ago, injury prevention has not received the policy recognition or level of resources enjoyed by many other significant public health issues.

The National Health Goals and Targets (now NHPAs) and related Medicare agreements have formed the broad basis for action on injury. Agreements under Section 24 of the *Health Insurance Act 1973* require that States and Territories undertake programs responding to the range of National Health Priorities. However, there is no requirement for performance in each or all of the priority areas. It is therefore not necessary for any State or Territory to focus on injury, if its overall response on national health goals and targets meets the terms of the funding agreement.

In general, policy development is fragmented and the lines of responsibility for injury prevention have not been clearly defined. Opportunities now exist to raise the profile of injury prevention and strengthen capacity, through greater interaction between the Commonwealth and the States and Territories, the Flinders University of South Australia Research Centre for Injury Studies, and the recently established NIPAC (see Chapter 5).

Intersectoral links

Optimal progress in injury prevention relies on strategic cooperation between health and other sectors. A number of intersectoral links have been established. Examples include the Australian Advisory Committee on Road Trauma, which facilitates interaction between health and road safety agencies at national level, and the Australian Sports Injury Prevention Taskforce. However, mechanisms for intersectoral cooperation are limited and existing links are usually bilateral. There is a need for further major cooperative initiatives that maximise the impact of interventions, and for formal structures that facilitate cooperation between sectors on safety matters.

Delivery infrastructure

Program implementation is the responsibility of the States and Territories. Some excellent interventions with positive impacts have taken place. National implementation has been possible through cooperation between Commonwealth, State and Territory injury prevention managers. A prime example has been the introduction of compulsory bicycle helmet wearing, led by Victoria. Another is the development of national standards for domestic hot water temperature led by New South Wales and fostered by the Commonwealth Department of Health and Family Services through chief medical officers. There have been significant reductions in injury among children, in road injury and there have been some successful projects targeting falls in the elderly. Injury prevention training courses have been offered at a number of universities and the Australian Injury Prevention Network has recently been formed as a forum for interchange among injury prevention professionals.

However, much of this progress has been achieved through the efforts of committed organisations and individuals rather than as a result of a coordinated plan of action. Overall, the gaps in policy framework, described previously, have limited the systematic implementation of programs.

In addition, progress has been hindered by a shortage of expertise and human resources at all levels. Neither a stable injury prevention workforce nor a viable infrastructure exists to support and train those who choose to work in this field. Many injury prevention professionals leave the field and take their expertise with them. Without well-trained personnel, resources may be wasted on the implementation of poorly planned programs. Lack of knowledge about important injury issues may also affect the capacity of senior management, and policy makers in general, to represent injury in policy priority setting forums.

Strategic planning

Effective strategies are required for communicating details of successful projects, linking research and surveillance to practice, and building a mechanism for the continual upgrading of policy.

There is a need to strengthen the consideration of injury issues as part of the core strategic process of health departments at Commonwealth and State and Territory levels. The Commonwealth Department of Health and Family Services has been developing a framework to clarify its role and to form a basis of agreements with the States, Territories and other agencies about directions for the future (see Section 5.1). A number of States have also developed strategic plans for injury prevention and control, but few have allocated the resources necessary to bring them to fruition. Two larger States in particular have been able to develop more comprehensive policy approaches: Victoria through implementing its strategic plan, *Taking Injury Prevention Forward*; and New South Wales through a lead agency model for injury prevention endorsed by the New South Wales Government.

Training opportunities, infrastructure and capacity

Injury prevention infrastructure in Australia lacks critical mass. The paucity of secure jobs within the injury field brings with it, as noted earlier, an absence of specialist injury practitioners, researchers and policy makers. As a result, there are few people in a position to provide training in injury surveillance and control.

Those who possess such skills are generally not provided with the infrastructure necessary to establish training programs. There are currently only two academic courses in Australia in injury surveillance and control (both in Western Australia). New South Wales and Victoria offer short (two to five days) courses and only South Australia has an apprenticeship program in place. These training programs provide models for the expansion of injury training across Australia. Given that many in the injury workforce currently commence their positions with little or no training in injury prevention, there is an urgent need to strengthen the capacity of the injury workforce through accessible, organised training courses and apprenticeships.

Research

Comparisons between the burden of injury on the Australian community and the amount of funding allocated for injury research suggest that the overall research effort in injury in Australia is not congruent with national need. A substantial difficulty for expansion of the national research effort on injury is a lack of appropriately trained researchers in this field. The complex and varied nature of injury research requires the development and acceptance of a wide range of research methods. More emphasis therefore needs to be given to the development and provision of appropriate training for the injury workforce and to the development of other innovative strategies, such as the encouragement of appropriate networks and research clusters.

Road accident research is maintained through the Federal Office of Road Safety, but funding for external research in occupational health and safety at a national level has been reduced. The history of research funding of injury prevention in Australia has led to a view in some quarters that the provision of adequate road and occupational injury research is sufficient to address the problem of injury. This view fails to recognise the huge burden of injury generated within home and leisure environments and related to manufactured products.

At its August 1997 meeting, the Ministerial Council on Consumer Affairs called for better and more comprehensive data on injuries related to consumer products and resolved to raise the matter with the Australian Health Ministers' Conference.

The current situation has resulted in major gaps in research concerning potential countermeasures and evaluation of countermeasures in practice. This in turn, exacerbated by lack of training and the level of seniority of personnel, has led to a situation where injury prevention is unable to compete for resources alongside other areas where more evidence is available on intervention. This occurs even if there is a lesser need for action in the better-researched area.

Evidence concerning cost-effectiveness

At this stage, information concerning the relative cost-effectiveness of different injury programs is unavailable. There is scant sound evidence of effective counter-measures to injury problems other than those relating to road trauma and, to a lesser extent, work-related injuries. The strength and quality of evidence in the road safety area reflects the level of research funding made available by governments that have been committed to addressing the transport injury problem. Even so, research comparing cost-benefit ratios for alternative road safety strategies is still at a formative stage. Other injury research lags far behind this.

Data availability

There are clear links between the availability of injury data and opportunities for priority setting, monitoring of injury problems and the evaluation of interventions. Information systems facilitate best practice and optimal use of resources. However, to date, the need for investment in such systems has been far from universally accepted, even within the health sector.

Although national data collections on injury-related deaths and hospitalisations have become more timely in recent years, considerable delays remain in some areas. National data collections provide information on the external cause code of injury (eg for poisoning, the type of substance and the understanding of the level of intent). However, the level of detail provided does not permit a thorough identification of causes or activity at the time of injury. Nor does it provide specific details about the type of setting in which the injury occurred.

Identification of Indigenous status, although now noted on death registrations in all States (with Queensland introducing this requirement in 1996), is generally not well recorded on hospital and other services data (Moller 1996b).

As noted in Chapter 1, hospital separations data are proving unreliable indicators of injury trends. These collections do not directly measure injury incidence, but rather a mixture of injury incidence and admissions policy. The move to casemix funding for hospital admissions but not for emergency department cases, appears to be associated with a significant increase in the number of admitted injury cases. This has produced an artificial upward trend in injury rates in some jurisdictions. A more detailed discussion of these issues is found in Appendix 2.

At best, present mortality and morbidity reporting systems provide a blunt tool for understanding injury issues. Improvements resulting from the implementation of extended coding for International Classification of Diseases (ICD–9) will be seen in recent data. Further gains are possible through the implementation of the full ICD–10 injury codes. However, there is a need to develop systems for understanding the circumstance leading to injury that are more efficient and effective than those based on the ICD. This may require some reduction of existing high-volume, low-quality systems, in order to support systems of lower volume, broader coverage and higher quality.

Data on the greater proportion of injuries, those not resulting in death or requiring hospital admission, are not collected systematically. Some States (Queensland, South Australia, Tasmania and Victoria) do have a sentinel emergency department injury surveillance system in place in a selection of hospitals. However, these are generally not representative of the rest of the State. Other States are constrained by lack of funding, delays caused by different perspectives of a definitive national minimum data set, and failure to agree upon the agency responsible for data collection.

4.3 Interventions available for implementation

Action in injury prevention is often based solely on the size or perceived importance of the problem, even when there is no empirical evidence upon which to base prevention initiatives. On the other hand, interventions which are known to be effective preventive measures for a specific injury problem are often not implemented. This section provides examples of these two realities so that State, Territory and national funding can be directed to those areas where intervention is likely to be effective. However, as indicated in the previous chapter, it is not possible to comment on the relative cost-effectiveness of different strategies for reducing injury incidence and severity as this information is currently unavailable.

It should be noted that the strategies described here (see Box, p63) do not constitute a definitive or comprehensive list of all effective or promising interventions, and that the list is based on the opinions of experts rather than on a systematic literature review.

Known effective strategies requiring greater action

Smoke detectors

There is ample evidence from Australia and overseas that smoke detectors save lives. Currently, not all States and Territories have enacted legislation requiring the installation of smoke detectors when building a new home, or carrying out renovations requiring council approval. There is also scope for retro-fitting of smoke detectors at the point of sale of homes.

Sports club/association policies regarding known effective protective gear

There is strong evidence that personal protective devices can prevent sporting injuries. Effective devices include mouth guards for contact sports, ankle taping and knee braces for a previously injured joint, protective eyewear for all squash and racquetball players, and helmets for horse riding. Rarely are these devices mandatory except for competition or professional levels of play. All relevant sports clubs and associations should be held responsible when injuries are sustained during practice or play in the absence of such protective devices.

Playground equipment safety standard and regulations

Hazardous play equipment is still present in many playgrounds throughout Australia. One study, conducted by Kidsafe, found that of 240 randomly selected public playgrounds in 10 local government areas of New South Wales, not one playground met all three basic criteria for safety (Withaneachi & Meehan 1997). The three basic criteria for safety relate to the depth of the soft-fall surfacing, the area covered by the soft-fall surfacing, and the height of the play equipment. There is no current playground equipment safety standard in use in Australia and no mechanism for requiring compliance, even if there were such a standard. As the evidence and need are both strong, the action is urgently needed.

Speed cameras and red light cameras

Speed cameras and red light cameras were cited in the NHMRC report, *Unintentional Injury in Young Males 15–29 Years* (NHMRC 1997a) as being known effective strategies for reducing injuries due to road crashes. However, not all States have approved the use of these devices to address the problem of road trauma.

Interlock devices for high-level drink-driving offenders

There is international evidence of the effectiveness of breath-activated interlock devices in preventing repeat or high-level offenders from driving while they are over the legal blood alcohol concentration, at least during the period of their use, and potentially over a longer term. South Australia is planning to trial this technology.

Mandatory standards for nursery furniture

Although there are voluntary standards on most items of nursery furniture, it is still possible to sell within Australia unsafe nursery items such as high chairs without adequate safety harnesses and prams that can collapse and sever fingers. By contrast, many of the necessary safety features for nursery furniture are mandatory in Europe and the United States. Australia and New Zealand have recently implemented a mandatory standard for cots. This may create a precedent for wider use of mandatory standards for children's goods where there is poor adherence to voluntary standards.

Legislation of 50°C maximum bathroom delivery temperature for all new hot water heaters

Following the amendment to the Australian Standard AS3500.4, States and Territories are in a position to introduce legislation requiring a 50°C maximum bathroom delivery temperature for water in new and renovated bathrooms. To date, this has only been taken up by Tasmania, South Australia and Western Australia and the new South Australian legislation is under review. Victoria will introduce legislation requiring a 50°C maximum temperature for new bathrooms in the first half of 1998. Queensland is intending to introduce new legislation this year to apply AS3500.4 which requires all new houses and major bathroom renovations to be filled with temperature control devices. New South Wales is currently considering legislation which will eventually affect all homes (new and established) by introducing a safety standard for all new hot water heaters. Such a safety standard applies in at least 28 of the 50 States of the United States. There is clear evidence of the effectiveness of this strategy and definitive action is called for by the States and Territories.

Strategies which merit further evaluation

Accords with licensed premises

Alcohol is a significant risk factor for injuries, particularly those involving road trauma and domestic violence and other forms of interpersonal violence. Several small-scale programs have been trialed in remote areas of Australia. These programs involve accords between licensed premises, the police and health authorities to address alcohol problems in remote communities. Although these accords appear to have resulted in some gains, an appropriate evaluation would require a larger population base. The potential for this approach to reduce alcohol-related injuries in remote areas of Australia needs to be thoroughly assessed.

Responsible serving of alcohol programs

Related to the previous strategy, responsible serving of alcohol programs generally involve training programs for the serving staff of licensed premises. There is some evidence of the effectiveness of such programs in reducing intoxication, violence and street offences. This is especially true when they are used in conjunction with value reorientation of managers of licensed premises and with effective policing at community level (Homel, Hauritz & Wortley 1997). To date, there is no evidence concerning the effect of responsible serving programs on total injury rates. However, given the large and well-documented contribution of alcohol to injury, the approach appears to offer promise.

Risk management of baby walkers

The benefits of walkers in helping infants to learn to walk are negligible and the risk of injury is great. It has been determined that the products are not of an unsafe design. However, when used by those for whom they are intended, generally children less than one year old, they greatly increase a child's risk of injury from falling down stairs and reaching hot objects on benches and tables. Paediatricians, physiotherapists and injury prevention workers have long called for a ban on this product. The United States has recently released a new standard for baby walkers. The relative merits of enforcing the United States standard in Australia or banning the sale of baby walkers needs to be assessed.

Falls prevention in older people

Certain types of medication are established risk factors for falls in older people and the impact of this problem on individual lives and on the health system is enormous. Although the improved management of medications offers considerable promise as a means of reducing falls in older people (Kempton in press), its contribution to decreasing the number and severity of falls has yet to be determined. Work in this area is complex because even if one risk factor is removed, there may be other factors that maintain the incidence of falls and mask the effectiveness of a single strategy. Randomised controlled trials have pointed to gentle exercise and hip protectors as effective strategies, but evidence for the benefits of modification of high-risk areas in the home has been mixed. There is a need to implement known effective strategies, targeting all relevant risk factors for each individual and measuring their impact through pilot intervention programs.

The risk of incurring an injury due to a fall increases for older people with increasing age and fragility. Not surprisingly, the group at highest risk includes those within nursing homes. Some local area health services in some States have introduced performance agreements between the health department and nursing homes. In the Australian Capital Territory, nursing homes are participating in the development of a strategy to reduce falls in the elderly in nursing homes. These agreements serve to increase the capacity and commitment of nursing homes to reduce the risk of falls by their residents. To date, these strategies have been accompanied by anecdotal evidence of improvement, but appropriate evaluation is warranted.

Daytime headlights on motorcycles

Although motorcycles represent only a small proportion of the total number of vehicles on the road, for the population aged 15–29 years, the death rate for motorcycle riders is nearly half that for all motor vehicle users. Moreover, the hospitalisation rate for motorcycle drivers aged 15–29 years is nearly double that for the motor vehicle drivers of the same age range (NHMRC 1997a). Estimates of the impact of daytime headlights have varied with studies reporting effects ranging from none to a three-fold reduction in the risk of an accident (NHMRC 1997a). While the 1992 Australian Design Rules requires hard-wired running lights in all new motorcycles, mandatory use of daytime headlights varies between States and Territories (Haworth et al 1994). Further commitment to this initiative and its evaluation is required.

Occupational safety programs targeting new/apprentice workers

The report *Unintentional Injury in Young Males 15–29 Years* noted that inexperience, youth and exposure to new hazards combine to elevate the injury rate of new or apprentice workers (NHMRC 1997a). International studies have shown that formal and comprehensive introductory programs for new staff that ensure graduated exposure to hazardous procedures and hazardous machinery can be effective in reducing the rate of injuries. Evaluation of such an approach has not been reported in Australia but such an assessment would be appropriate as there is scant evidence of successful strategies targeting the occupational safety of young people.

Hot beverage scalds reduction

Approximately half of emergency department visits, and one-third of hospital admissions due to scalds in young children are associated with hot beverages. The MUARC and some State health departments have investigated the feasibility of introducing a mug designed to reduce the risk of hot drinks spilling over a young child. Similar mugs are in widespread use, particularly in cars, in the United States. Although prototype mugs have been designed, the cost to manufacturers in 'tooling up' for the production of such a mug in Australia has prevented the testing of this strategy. A recent study of trends in burns in young children in Melbourne over the past 20 years, indicated that scalds due to hot beverages are the only types of burns in young children that are not declining (Streeton & Nolan 1997). Investment in identifying the potential of this strategy is overdue.

Limiting availability of methods of suicide and self harm

Past experience has shown that limiting the availability of guns and barbiturates, and detoxifying of natural gas, have led to reductions in suicide mortality by these means. Monitoring the impact of guns legislation, acting to implement the recommendation on medication in the NHMRC's clinical practice guidelines, *Depression in Young People* (NHMRC 1997b), and supporting other activities to reduce the availability, lethality and cultural acceptability of common means of suicide holds promise to reduce suicide rates. Some activity in this area has commenced under the National Youth Suicide Prevention Strategy, but further action could be undertaken in conjunction with other injury prevention approaches.

Known effective strategies

- smoke detectors
- sports policies regarding known effective protective gear
- playground equipment safety standard and regulations
- speed/red light cameras
- interlock devices for high-level drink-driving offenders
- mandatory standards for nursery furniture
- legislation of 50°C maximum bathroom delivery temperature for all new hot water heaters

Promising strategies requiring evaluation

- accords with licensed premises
- responsible serving of alcohol programs
- risk management of baby walkers
- falls prevention in older people (eg medication management, gentle exercise, hip protectors, nursing home performance agreements)
- falls prevention agreements for nursing homes
- daytime headlights on motorcycles
- occupational safety programs targeting new/apprentice workers
- hot beverage scalds reduction
- limiting availibility of methods of suicide and self harm

Note: This list contains examples of effective or promising intervention strategies. It is not a comprehensive or definitive list and is based on the opinion of experts rather than on a systematic literature review.