

ADVISORY COMMITTEE ON POPULATION HEALTH
Public Health Working Group

ISSUE: National Injury Prevention and Control Strategy

Why is the issue important?

Injuries, both unintentional and intentional, are an important public health problem in Canada. (Due to availability of information this paper deals mainly with unintentional injuries but emphasizes the importance of future actions to deal with intentional injuries.) In 1995, 13,337 Canadians died as a result of both intentional and unintentional injuries¹, and another 277,526 were hospitalized². It has been estimated that, for every Canadian who dies from injury, a further 320 are seen in hospital emergency rooms, while an unknown number have their injury treated elsewhere or do not seek treatment. Many non-fatal injuries result in impairment and disability such as blindness, spinal cord injuries, and intellectual deficit due to brain injury. Unintentional injuries including motor vehicle crashes, falls, burns and poisonings account for 65% of deaths and 85% of hospitalizations for injury.

Injury ranks fourth among leading causes of death across all ages in the Canadian population. The three leading causes of death overall, diseases of the circulatory system, cancer and respiratory diseases, predominate among older Canadians, while injuries are the leading cause of premature mortality among our children, youth and young adults³.

Injury is arguably the most underrated public health problem in Canada, given that so many of these deaths and injuries are predictable and preventable. Most Canadians consider cancer, heart disease, HIV and infectious diseases as the most serious threats to their health and well-being⁴.

Injuries are the leading cause of death for Canadian children, youth and younger adults (women aged 1-34, men aged 1-44)³ and a leading cause of

hospitalizations. As children grow from infancy to adolescence, injury becomes a relatively more important cause of death. In 1995, injury caused approximately 2 per cent of deaths among Canadian infants, 44 per cent among children aged 1-14, and 74 per cent of death in older adolescents, of which 31 per cent were suicides¹.

After adolescence, the proportion of deaths attributable to injury lessens, particularly after the age of 24.

Injuries accounted for 72 per cent of deaths among young adults (20-24) in 1995, and 52 per cent of deaths among those aged 25-34. Motor vehicle collisions and suicide are the primary causes of death by injury, with a much smaller number due to homicide¹.

Injury death rates increase sharply after age 65 (53/100,000 population among 65-74 year old , 417/100,000 among those 85 years and older in 1995)¹.

Among seniors 75 years of age and older, falls account for more injury deaths than either motor vehicle crashes or suicide³. One in three adults over 65 experiences a fall each year, and falls are a contributing factor in 40 per cent of admissions to nursing homes⁵.

Within Canada, specific population groups have a higher risk of injury. For example, Aboriginal people experience three times the injury death rate of Canadians as a whole⁶, and the suicide rate for Aboriginal youth under 20 is five times greater than that of all young Canadians⁷.

In an international comparison of injury rates among developed countries, Canada ranked seventh highest for all injuries and fifth highest for suicide⁸. This ranking is based on the rates of suicide in eleven countries.

Injured Canadians spend close to 2.2 million days in hospital each year⁹. In addition to the impact of human suffering and death caused by injuries, the financial cost to society is large. The economic burden of unintentional and intentional injury is estimated to be greater than \$14 Billion per year, or 11 percent of the

total direct and indirect cost of illness, ranking third after cardiovascular(\$20 B) and musculoskeletal (\$18 B) disease among health problems in terms of total costs to Canadians¹⁰.

Unintentional injuries cost Canadians more than \$8.7 B per year, approximately \$4.2 B of which is spent on health care, and \$4.5 B representing loss of productivity associated with disability and premature death. This amount does not include the costs of injuries from violence and suicide, nor does it attempt to assign a financial value associated with the pain and the out-of-pocket care giving costs associated with caring for injured Canadians¹¹.

Falls, the most common cause of injury among seniors and school-aged children, account for 40% or \$3.6 B of the total cost of unintentional injury. Motor vehicle crashes are the next most costly cause, accounting for \$1.7 B or 20% of the total amount¹¹.

Why should this issue be addressed now?

Over the last 15 years overall rates of injury death have decreased by more than 30% in Canada¹. However, this promising decline is due almost exclusively to a reduction in unintentional injuries particularly traffic collision related injuries. The rate of death due to intentional injuries including child abuse, homicide and suicide have not declined to nearly the same extent and the rates for suicide remain virtually unchanged.

Injuries therefore continue to be an important public health problem in Canada because of the burden of fatalities, hospitalizations, impairments and disabilities, as well as the associated financial and social costs.

Research has shown that at least half of all injuries are preventable if known, proven effective interventions are undertaken. Effective interventions include automobile seatbelts, child restraints, speed controls and random alcohol breath testing, bicycle helmets. For example, Australia developed an "Accident Black Spot

Program? - a highly cost-effective program with benefit costs of 5:1 to 10:1. The sooner collective action is taken the fewer Canadians will needlessly sustain serious injury and death and the sooner the burden on our health care system will be reduced.

The momentum for injury prevention is building across the country. More attention is being focussed on injury prevention at provincial/territorial, regional and community levels. Stakeholders from both programming and research communities, are calling for better support and coordination of injury prevention through the development of national models in Canada..

- SMARTRISK, an organization which focuses on policy and program to address the issue of injuries and injury-related deaths, has highlighted the need for the development of a national injury prevention strategy incorporating comprehensive programming, improved surveillance and increased funding for research.
- The Rick Hansen Institute has proposed a Neurotrauma Initiative that includes a national injury prevention focus. The biomedical research component of the Initiative received partial funding over a one year period through the MRC.
- A recent meeting (October 1998) of Canadian childhood injury prevention advocates and researchers recommended the establishment of a national centre for injury prevention and control (all ages, all injuries).
- The Health Canada *Report of the Task Force on Suicide in Canada* (1994 update) has created pressure for the Department to take a leading role in developing a national strategy to prevent suicide. Canada is one of the few developed countries where there is no established national suicide prevention strategy in place.

- On the international scene, Canada will host the Sixth World Conference on Injury Prevention and Control in Montreal in 2002, under the auspices of the World Health Organization. The theme of the conference is: *Injuries, Suicide and Violence: Building Knowledge, Policies and Practices to Promote a Safer World*
- The Third Ministerial Conference on Environment and Health will be held in London, England in June 1999, where injury prevention will be recognized as one of the top three priorities for action.
- The Quebec WHO Collaborating Centre for Safety Promotion and Injury Prevention has recently published in conjunction with WHO and the Collaborating Centre on Community Safety Promotion, Karolinska Institutet, Sweden a document "Safety and Safety Promotion: Conceptual and Operational Aspects" that proposes a framework to favour planning and implementation of safety enhancement interventions in a community for unintentional injury, suicide, violence and crime¹².

What is currently being done/what needs to be done to address this issue and by whom?

In 1991, the Symposium on Injury Control Objectives for Canada and the subsequent publication, *A Safer Canada*, identified six broad injury prevention goals as a framework for a national strategy on injury prevention and control:

- Reduce injury death and disability across Canada
- Strengthen public policy regarding injury prevention
- Improve awareness and education programs in injury prevention
- Create safe environments

- Decrease the incidence of injuries related to alcohol and other substance use/abuse
- Improve systems of trauma care and rehabilitation

Reducing the risk of injury is a constantly evolving challenge. During the last decade Health Canada established partnerships with federal departments and agencies as well as stakeholders to improve surveillance, public health and other programs, public health education, and legislation related to injury prevention.

In addition to legislative, regulatory and enforcement activities, Environmental Health establishes voluntary compliance programs with the manufacturing industry, certification programs through standards organizations, mutual recognition agreements and memoranda of understanding between agencies and governments, and public health education programs with injury prevention groups. The combination of enforcement activities and these various risk management programs provides flexibility and better outcomes in protecting the public from the health and safety hazards associated with consumer products and hazardous materials in the workplace.

For the Safety of Canadian Children and Youth, the result of collaboration among injury prevention experts across the country, was published by Health Canada in 1997. Community initiatives for injury prevention have also been funded e.g., the University of Victoria has received funding to establish an Adult Injury Resource Network and the Saskatchewan Institute for the Prevention of Handicaps has received funding to develop a train the trainer program on car restraint safety. Injury prevention education is incorporated into the currently funded community based programs for children at risk (0-5), for example the *Canada Prenatal Nutrition Program*, the *Community Action Program for Children*, and the *Aboriginal Head Start* program.

There is also an injury prevention component in the *Nobody's Perfect* parenting program. Fitness/Active Living promotes safe play within a safe physical environment as part of healthy child development and has funded the Canadian Parks and Recreation Association to develop a playground safety initiative.

The federal/provincial/territorial Ministers Responsible for Seniors have established a working group on safety and security which is currently developing recommendations for coordinated action across jurisdictions for Ministerial consideration. In addition to producing the *Safe Living Guide: A Guide to Home Safety for Seniors*, Health Canada is developing a framework for action on injury prevention using a population health approach.

The Federal Interdepartmental Committee has formed a Working Group on safety and security whose objective is to share information and identify opportunities for collaboration on initiatives related to unintentional injuries and the abuse of older adults. The Canadian Standards Association's Strategic Advisory Group on Aging, whose members reflect a broad spectrum of sectors, is currently examining options regarding CSA's role in the development of standards for an aging society.

Other initiatives which address injuries among all ages include, the road safety committee coordinated by Transport Canada which works with industry, non-government organizations and the health sector to improve road safety and reduce motor vehicle mortality and trauma; the Workers Compensation Boards which have developed occupational safety and health programs with provincial/territorial and federal partners for coordination of efforts and are widening their range of activities to include in-school programs and youth worker awareness and risk management; the Canada Agriculture Safety Program (CASP) is managed by the Canadian Coalition for Agriculture Safety and Rural Health (CCASRH), funded by Agriculture and Agri-

Food Canada and includes provincial governments. The objective of this program is the reduction of farm injuries and fatalities.

The SMARTRISK Foundation in collaboration with Health Canada, the Province of Ontario and the Kingston, Frontenac, Lennox, and Addington Health Unit released in November 1998, *The Economic Burden of Unintentional Injury in Canada* report that outlines the costs associated with unintentional injuries and recommends the development of a national injury prevention strategy.

At the provincial/territorial level, significant strides have been made in coordination and strategic development of injury prevention and control activities including:

- British Columbia has an Office of Injury Prevention within the Ministry of Health and has established an Injury Research and Prevention Unit. It also has a Minister's Advisory Committee on Injury Prevention that has developed a report "BC-Injury Free - A Framework for Action".
- The Alberta Centre for Injury Control and Research (ACICR), funded by Alberta Health, was launched September 28, 1998, to consolidate and strengthen injury control initiatives. It will forge linkages between prevention, emergency medical services, acute care and rehabilitation. In November 1998, ACICR was designated as an Affiliate Safe Community Support Centre of the WHO's Safe Communities Network.
- Saskatchewan has a strong coalition comprised of government and non-government partners in three main areas: farm safety, aboriginal injuries and children's health and safety. This coalition links with groups such as the Saskatchewan Institute for the Prevention of Handicaps and the Canadian Agricultural Injury Surveillance Program.

- In Manitoba, IMPACT has been successful and continues its fight against intentional and unintentional injuries. They address injury prevention as part of a community and province-wide activity. This group has also used creativity in responding to product-related injuries, such as the baby walker injury awareness and buy-back campaign.
- The Ontario Injury Prevention Resource Centre of the Ontario Public Health Association actively promotes coordination, networking, and information-sharing among persons and organizations working toward injury prevention in Ontario. Ontario's 37 Boards of Health must implement program requirements for injury prevention including substance abuse.
- Coordinated action for safety and injury prevention has been a priority issue in Québec for over 10 years, involving public health departments, the Ministry of Health and Social Services and different ministries, organizations and governmental agencies responsible for road, sports, firearms, violence and other safety issues. A network of Quebec professionals has also been named as a WHO Collaborating Centre on Injury Prevention.
- Nova Scotia recently opened an office of injury prevention associated with the IWK-Grace (women's and children's health centre) in Halifax, and is now trying to establish province-wide injury surveillance.
- The Newfoundland injury prevention coalition addresses bicycle helmet use, playground safety and fire prevention.

Despite these accomplishments, there remains a need

for more coordination at all levels particularly at the national level. Sustained national action is now needed to coordinate the various provincial/territorial, regional and local initiatives which have proven effective in reducing injuries.

The causes of injury tend to be multi-factoral. Among the most effective approaches to prevention and minimizing severity of injuries are those programs that are built around the various sectors which can make the right contribution at the right time. For example, injuries associated with traffic crashes have steadily decreased over the last few decades. This is attributable to a combination of public education, vehicle and roadway design, decreasing public tolerance for drinking and driving, improved emergency response and trauma care, and legislation supported by enforcement at different levels within communities across Canada. Sectors who contribute to this success story include government, industry, health and the public.

What are the national strategies for addressing this issue?

- Injury prevention and control in Canada would be best addressed through the establishment of a national injury prevention and control strategy. The overall goals of this strategy would be to reduce both fatal and non-fatal injuries and to reduce the severity of those injuries that do occur. This goal would be achieved by:
- A framework that promotes a co-ordinated and integrated approach to injury prevention and control needs to be developed activities in this area are fragmented and largely unevaluated.
- There needs to be a heightened awareness to enable Canadians to better understand and act on the fact that injuries are preventable and not just ?accidents?. Risk management of injury is a responsibility shared by individuals, families, communities, the private sector and all levels of government.

- National surveillance capacity needs to be strengthened to address gaps including collection of detailed information on the circumstances of fatal injuries and national surveillance of injury-related long term impairment and disability. Gaps in data exist for example with respect to particular population groups such as seniors and Aboriginals.
- Funding for injury prevention and control research needs to be increased, including evaluation of existing and new programs in order to identify best practices and models. This is particularly important because injury research accounts for less than 1% of total health research funding while injuries represent 11% of the economic burden of illness in Canada¹⁰.

Next Steps

- Recommend that the Deputy Ministers recognize injury as an important public health problem that requires a coordinated, multi-sectoral, multi-jurisdictional response.
- Recommend that the Deputy Ministers support the development of a national strategy for injury prevention and control for Canada.
- Recommend that Health Canada, in consultation with ACPH, coordinate the development of a National Framework for Injury Prevention and Control by engaging all sectors and jurisdictions.

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May 21, 1999

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Appendix

Some **National Organizations** involved in Injury Prevention:

Transport Canada (Highways and Railways)
Canadian Institute of Child Health
Canadian Parks and Recreation Association (Playground safety)
Canadian Children's Safety Network
Canadian Public Health Association
St. John Ambulance (First Aid training and prevention of injuries)
Canadian Red Cross (Drowning)
SAFEKIDS Canada (0-14 issue related activities)
Canadian Automobile Association (Child occupant restraint and pedestrian safety)
The Lifesaving Society of Canada
The Canadian Federation of Agriculture (Farm Safety)
Think First! Foundation (Head and spinal injury prevention ? neurosurgeon supported)
Rick Hansen Foundation
Fire Prevention Canada
Canadian Association of Chiefs of Police
Safe Communities Foundation
Canadian Cycling Association (Can ? bike program).
Saskatchewan Institute for the Prevention of Handicaps (National project on child occupant restraint safety)
Infant and Toddler Safety Association
Block Parents of Canada
Product Safety Bureau, Health Canada
Child Injury Division, Laboratory Centre for Disease Control, Health Canada
Canadian Association of Poison Control Centers
SMARTRISK Foundation (youth injury prevention)
War Amputees of Canada
Canada Safety Council
Canadian Paediatric Society

Some **Federal Government Bodies** involved in Injury Prevention

Transport Canada ? road, rail, air, & marine safety
Canadian Coast Guard
Interdepartmental Working Group on Search and Rescue Secretariat (RCMP, Environment Canada, National Defense, Coast Guard and Transport Canada)
Statistics Canada (Data on injuries ? hospitalization and mortality data)
Canadian Institute of Health Information (National Trauma Registry).
Canada Mortgage and Housing (Home safety)
Agriculture Canada (Farm Safety surveillance system and injury prevention)
Parks Canada. (Funds injury prevention initiatives)
Health Canada ? Seniors Injury Prevention (Aging and Seniors section)
Child and Youth Injury Prevention (Childhood and Youth Division)
Aboriginal Injury Prevention (Medical Services Branch).
Child Injury Division (LCDC ? Bureau of Reproductive and Child Health)
Child Maltreatment Surveillance (LCDC ? Bureau of Reproductive and Child Health).
Fitness and Active Living Unit (Health Promotion and Programs Branch).
Product Safety Bureau (Health Protection Division)
Children's Mental Health (Child and Youth Division)
Alcohol Drugs and Dependency issues (Family Violence

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Prevention Division)
Crime Prevention Council (Justice Canada)
Labour Canada (HRDC) ? Work place prevention

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