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BC - INJURY FREE

The Provincial Injury Prevention Plan for Children and Youth (Ages Birth to 24) A Framework for Action

Report of the:
Minister's Injury Prevention Advisory Committee
British Columbia Ministry of Health

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The Provincial Injury Prevention Plan for Children and Youth (Ages Birth to 24) A Framework for Action

EXECUTIVE SUMMARY

More children and youth ages birth to 24 years die from unintentional injuries than from any other cause. Fortunately, up to 90% of injuries are preventable.

The purpose of this plan is to bring together the many organizations, communities, and individuals who want to help reduce unintentional injuries to British Columbia children and youth under a common mission, with specific objectives and strategies. This five year plan can be used as a guide to facilitate partnerships, build coalitions, and focus efforts in the reduction of unintentional injuries.

The plan outlined in this document:

- identifies the major causes of disability and death due to unintentional injuries;
- provides the mission statement, objectives, and targets for unintentional injury prevention;
- identifies strategies to achieve these targets;
- lists organizations which will be involved in the implementation of the strategies.

The mission statement emphasizes the importance of uniting in a common effort:

> To make British Columbia a safe place for children and youth through the *coordination of efforts* that will prevent and significantly reduce injuries and their consequences, thereby reducing the unacceptable costs to individuals and society.

The overarching goal addresses issues common to all unintentional injuries:

> To enhance knowledge about unintentional injuries to facilitate the planning, implementation, and coordination of general and specific measures and stimulate further research and action.

This goal is accompanied by three recommended strategies:
- To strengthen the role of the Ministry of Health's Office for Injury Prevention.
- To establish sufficient sustainable private and public funding for injury prevention.
- To establish an expert injury prevention research group.

The six objectives and their accompanying strategies apply to specific categories of unintentional injuries. With the exception of the industrial/workplace objective which concerns the 15 to 24 age group, the objectives address unintentional injuries to children and youth ages birth to 24 years. Targets were developed on the basis of past trends and what was thought to be achievable for those objectives for which there was sufficient data and information regarding the pattern of injuries. The baseline is the average annual rate for 1990 to 1994.

Objective	**2001 Reduction Target**
1. To reduce the number of fatalities and serious injuries resulting from traffic collisions.	15%
2. To reduce fire injuries and deaths.	20%
3. To reduce drownings and water-related injuries.	10%
4. To reduce industrial/workplace injuries and fatalities for youth ages 15 to 24.	10%
5. To reduce home and residential injuries.	10%
6. To define, quantify, and reduce sport and recreation injuries.	--

Achieving these target reductions would result in an estimated 45 fewer deaths and 1,800 fewer hospitalizations due to unintentional injuries in 2001.

The range of intervention strategies for preventing unintentional injuries is very broad. The coordination of efforts is a continuing process with the potential to further significantly reduce unintentional injuries.

INTRODUCTION

BACKGROUND

In the spring of 1995, the Minister of Health appointed the Minister's Injury Prevention Advisory Committee (see Appendix A). The 16 members selected to serve on the committee reflect British Columbia's broad-based interest in injury prevention and control. They include key representatives drawn from among more than 150 voluntary, professional, private sector, government, and target population organizations which are focused on unintentional injury prevention for children and youth ages birth to 24 years. As its first task, the committee chose to develop and implement a comprehensive provincial unintentional injury prevention plan for children and youth.

More than 150 organizations in BC are involved in injury prevention for children and youth.

There are three main reasons for choosing to focus on this specific age group. First, unintentional injuries are the leading cause of death and injury at a time of life when individuals are usually healthy. Second, up to 90% of unintentional injuries are preventable. And third, there is an opportunity to develop safe behaviours early in life.

Since May 1995, the Advisory Committee has been meeting to develop this document with stakeholders' input. This five year plan is intended to provide a unifying direction for the many organizations and individuals which are involved in, or want to become involved in, efforts to reduce unintentional injuries among children and youth in British Columbia. It can be used as a guide to facilitate partnerships, build coalitions, and strengthen leadership. Organizations endorsing this plan at the time of printing are listed in Appendix B.

A multi-sectoral advisory committee was formed to address unintentional injuries.

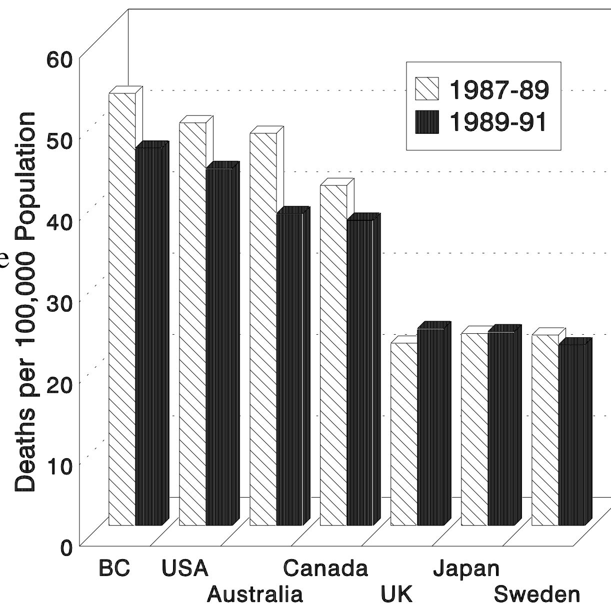
Injuries can be classified into two major categories: unintentional injuries (e.g. due to motor vehicle collisions, drownings, falls, burns, and poisonings), and intentional injuries (e.g. due to child abuse, family violence, suicide and homicide). The Advisory Committee's mandate is to address unintentional injuries. However, the importance of intentional injuries is recognized, as is the fact that some injuries which appear to be unintentional may be the result of intentional actions. Those interested in further information regarding programs and services that address intentional injuries may refer to the *Inter-Ministry Child Abuse Handbook*[1] for more information.

THE INJURY PROBLEM

For British Columbia children and youth ages birth to 24 years, unintentional injuries are the leading cause of death and injury. Every year, on average, more than 250 individuals in this age group die from unintentional injuries. Another 11,000 are hospitalized as a result of injuries each year, while tens of thousands more are treated at emergency departments and released.[2] These data alone do not reflect the human and monetary costs for the individual, the family, and society.

As Figure 1 shows, British Columbia ranks high among the industrialized nations in terms of deaths due to unintentional injuries. Although the decline in injury death and hospitalization rates in the province has been impressive, the low rates experienced by children and youth in European countries and Japan indicate what might be achieved in British Columbia.

Figure 1
Trends in Unintentional Injury Death Rates
Ages 15 - 24, BC and Selected Countries
1987-89 & 1989-1991



Costs

Injuries represented 13.9%, or approximately $11 billion, of the total direct and indirect cost of illness in Canada in 1986.[3] **If the total $11 billion cost of injuries were to be divided among the provinces, British Columbia's share would be about 10%, or $1 billion per year.** The magnitude of the costs involved is reflected by hospital bed day costs in British Columbia associated with unintentional injuries. These alone amounted to an estimated $200 million for the fiscal year 1994/95.[4]

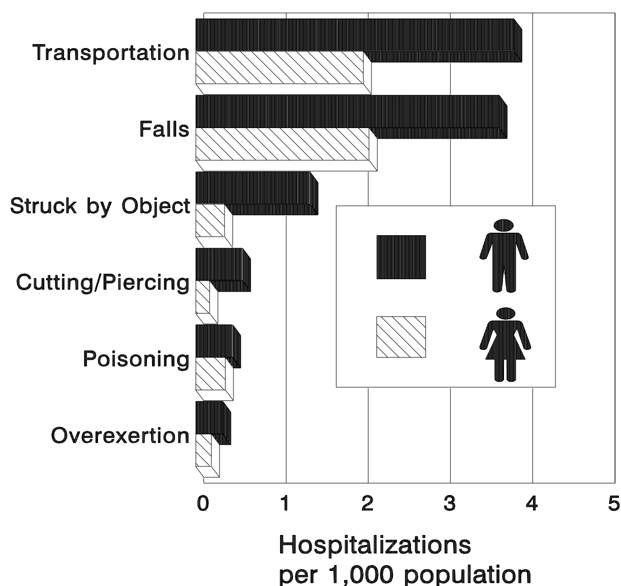
Injury Patterns

Injuries are not random; rather there are predictable patterns as to who is being injured and the risk factors associated with the injuries. Published literature and health data demonstrate differences in the rates, type and severity of injuries suffered by gender, region, income, and age group.

Injury Facts Highlights

Injuries are the leading cause of death and injury at a time of life when individuals are usually healthy.

Figure 2
Unintentional Injury Hospitalization Rates by Cause and Gender, BC
Ages Birth - 24, Annual Average for 90/91-94/95



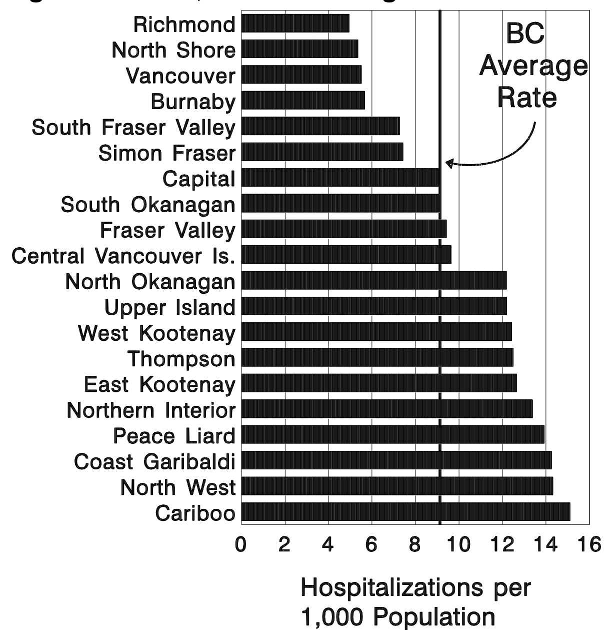
- **Traffic injuries** are the leading cause of serious and fatal injuries in children and youth, with an annual average of 170 deaths and 3,469 hospitalizations each year from 1990 to 1994.[5]

- **Falls** with an annual average of 3,396 hospitalizations are a close second. The 5 to 14 year old age group is at greatest risk.[6] Falls are especially common during sport and recreational activities.[7]

- **Males** aged birth to 24 years are more likely to die from injuries than females and account for 67% of the injury hospitalizations in

British Columbia.[8]

Figure 3
Unintentional Injury Hospitalization Rates
by Health Region, BC
Ages Birth - 24, Annual Average for 90/91-94/95



Injuries are predictable and preventable.

- Children and youth who live in **northern areas** of the province are at greater risk for unintentional injuries than their counterparts in metropolitan areas (see Fig. 3).[9]

- **Alcohol** has a profound impact on the magnitude of the injury problem. During 1994, 68 children and youth under the age of 26 were killed and 2,222 were injured in alcohol related collisions.[10]

- Studies have shown significantly higher injury death rates among **First Nations children and youth** living on reserves.[11]

KEYS TO SUCCESS

Much progress has been made in understanding the characteristics of injuries and in designing effective prevention programs. Effective interventions can be developed by analysing the various factors that influence the occurrence and impact of injuries: the socio-economic environment (i.e. laws and their enforcement), individual behaviours and skills (i.e. seat belt use), the physical environment (i.e. road design), and health services (i.e. access to emergency medical services). To prevent or minimize unintentional injuries, it is not necessary to alter all the factors. Interventions can be chosen to alter those factors which are most easily changed.

Sweden, with a 38 year history of injury prevention programs, has in that time reduced injury deaths to half the Canadian rate. The Swedish model is based on three components:[12]

- injury surveillance and prevention research;
- producing a safer environment for children through legislation and regulation;
- (coalitions to promote) a broad-based safety awareness and education campaign.

The Provincial Injury Prevention Plan for Children and Youth builds on this approach as well as the experiences of other jurisdictions such as the State of Victoria in Australia.[13] The intervention strategies in the British Columbia injury prevention plan fall into the following five categories:

- leadership and coordination;
- awareness and education;
- environmental/engineering (i.e. design changes);
- data collection and research;
- policy/legislation (accompanied by enforcement).

This plan can be used as a focal point for injury control activities in our province. Anticipated potential benefits include coordinated injury prevention initiatives at the provincial, regional, and community levels, and more effective use of resources as gaps are identified and unplanned duplication reduced. Successfully reducing unintentional injuries also depends on the ability to implement effective programs based on what is already known, evaluation of the impact of these strategies, and fostering research and reliable data necessary for future progress.

Coordinated injury prevention initiatives can have a significant impact.

NEXT STEPS

The Minister's Injury Prevention Advisory Committee is taking a leadership role in guiding and coordinating the next steps in the implementation of the plan. Communities and key agencies will be encouraged to participate in planning and action, monitoring progress, and evaluating the impact of specific activities. Emphasis will be placed on developing local coalitions of organizations committed to injury prevention, actively pursuing the involvement of youth in the development and implementation of injury prevention strategies, and developing multicultural initiatives and plain language resources. In addition, by encouraging the collection of data at the community level using a standard minimum data set, death and hospitalization data can be enhanced with local information about the occurrence of unintentional injuries.

Emphasis will be placed on developing local coalitions of organizations committed to injury prevention.

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Mission Statement

To make British Columbia a safe place for children and youth through the *coordination of efforts* that will prevent and significantly reduce injuries and their consequences, thereby reducing the unacceptable costs to individuals and society.

Overarching Goal

To enhance knowledge about unintentional injuries in order to facilitate the planning, implementation, and coordination of general and specific measures and stimulate further research and action.

Key Strategies

Research, funding, and coordination are critical to the overall provincial injury prevention effort.

- To strengthen the key role of the Ministry of Health Office for Injury Prevention, recognizing its capacity to link research, prevention education, and community efforts.
- To establish sufficient sustainable (public and private/corporate) funding for injury prevention, recognizing the magnitude of the child and youth injury issue as well as the complex and long term nature of injury prevention work.
- To establish an expert injury research group with the objective of enhancing knowledge about unintentional injuries by conducting research to identify risk factors and to evaluate the effectiveness of interventions in order to facilitate appropriate planning and coordination of injury control programs.

These strategies are critical to the overall provincial effort to enhance and evaluate current programs, stimulate and develop new initiatives, and provide the coordination between groups and agencies involved in research and program implementation. They will also provide opportunities for individuals and organizations to develop or refine skills which will increase their effectiveness in working in injury prevention.

Objective 1:

To reduce the number of fatalities and serious injuries resulting from traffic collisions.

Target/ Indicator: Reduce deaths and serious injuries resulting from traffic-related collisions by 15% by the year 2001 for ages birth to 24.

Baseline:

An average of 18,472 deaths and serious injuries occurred each year from 1990 to 1994. This is equivalent to an average annual rate of 1,584 deaths and serious injuries per 100,000 population.[14]

Sources: Police-reported collision data: Motor Vehicle Branch (MVB).

Claims data: Insurance Corporation of British Columbia (ICBC).

Issues: Traffic collisions are a leading cause of death and injury in our society. Costs to the Insurance Corporation of British Columbia for workplace loss, hospital and medical costs, property damage and insurance costs, are estimated at $1.8 billion annually.[15]

For youth, traffic-related incidents are the single most prevalent cause of serious injury and death.

Traffic-related incidents are the single most prevalent cause of serious injury and death for young people.

The increasing number of motor vehicles in the province and the degree of mobility in our society require a new approach to the problem. Government is providing leadership with new enforcement and education initiatives, but, realizing our goal of reducing traffic-related injuries necessitates active participation from community groups, non-profit organizations and all road users.

The collaboration and cooperation among all groups will be essential in achieving wide-spread public awareness and support for the objectives outlined in this plan. These strategies are a first step in what will be an ongoing process to develop a traffic safety ethic in our society.

Strategies:

☐ **Provide leadership and coordination.**

- continue Traffic Safety Initiatives; i.e., Administrative Driving Prohibition; Vehicle Impoundment; New Driver Improvement Program; Photo Radar Program
- continue and enhance Drinking Driving CounterAttack Program
- support and expand the community Speed Watch groups, advocacy groups, community safety committees, and other groups

☐ **Support police enforcement of traffic laws.**

- develop public policy and legislative programs to facilitate new traffic safety initiatives e.g. red light cameras, driver education, training and licensing programs
- provide police enforcement technology/tools
- establish Drug Recognition Expert Training Program
- host a Traffic Safety Summit for police and judiciary to examine the impaired driving prosecutorial process

☐ **Provide public awareness and education.**

- coordinate high-visibility police enforcement campaigns i.e. speeding, occupant restraints, drinking driving
- promote awareness of key safety issues: drinking driving (CounterAttack, Game Plan, and Dry Grad programs), speeding (Speed Kills program), vehicle/occupant safety devices (Infant Child Restraint Inspection Program), cycling (Safe Cycling and Bike Smarts programs), bicycle helmets
- participate at displays, community and school events
- incorporate traffic safety education at appropriate points in the school curriculum (e.g. Bike Smarts)
- support speakers tours to secondary schools, assist youth groups

☐ **Promote improvements in road and traffic control systems.**

- work with municipalities and citizens on community road improvements e.g. road systems, traffic control systems
- research and confer with automotive industry on improved vehicle design and safety devices

Key Agencies:

British Columbia Automobile Association (BCAA)
British Columbia Brain Injury Association
British Columbia Crime Prevention Association
British Columbia Injury Prevention Centre
British Columbia Medical Association (BCMA)
British Columbia Safety Council
Emergency Nurses Group of British Columbia
Insurance Corporation of British Columbia (ICBC)
Ministry of Attorney General, Police Services Division
Ministry of Transportation and Highways:
 Drinking Driving CounterAttack Program
 Highway Safety Section
 Motor Vehicle Branch
Richmond Cycling Committee
Safe Start
Skeena Health Unit
University of British Columbia,
 Road Safety Research Group
Young Drivers of Canada

Objective 2:

To reduce fire injuries and deaths.

Targets/ Indicators:

- Reduce deaths from fire-related injury by 20% by the year 2001 for ages birth to 24.
  Baseline:
  An average of 13 deaths occurred each year from 1990 to 1994. This translates into an average annual rate of one death per 100,000 population.[16]
- Reduce fire-related injuries by 20% by the year 2001 for ages birth to 24.
  Baseline:
  An average of 280 hospitalizations occurred each year from 1990/91 to 1994/95. This translates into an average annual rate of 24 hospitalizations per 100,000 population.[17]
- Increase the proportion of houses equipped with properly installed and operating smoke alarms and sprinklers.
  Baseline:
  Out of the residential fires that were reported in 1990 to the British Columbia Office of the Fire Commissioner, 60% of them occurred where there was no smoke alarm present. In 18.5% of the residential fires reported in 1990, a smoke alarm was present but did not activate.

  The 1990 Health Promotion Survey showed that 82% of homes in British Columbia had smoke alarms while only 14% of them had sprinkler protection in 1990.

Sources:

Deaths: Ministry of Health, Vital Statistics Agency.
Hospitalizations: Ministry of Health, Regional Performance Analysis Branch.
Proportion of functional alarms and sprinklers at the time of a fire: Ministry of Municipal Affairs and Housing, Office of the Fire Commissioner Fire Incident Reporting and Evaluation System.
Proportion of equipped houses: Canada's Health Promotion Survey 1990, Health Canada.

Issues:

From 1990 to 1994 in British Columbia, fire caused a yearly average of 13 deaths and 280 hospitalizations for children and youth (ages birth to 24).[18]

To enhance the delivery of fire safety programs, the fire service is building new partnerships with other community, regional and provincial organizations.

Community education has been identified as one of the most effective keys to prevent fire-related injuries and deaths in the home. Accordingly, the British Columbia Fire Safety Advisory Council has established a provincial Fire and Life Safety Strategic Plan to provide a coordinated approach to fire safety education.

The majority of fire incidents occur in the home where provincial safety regulations have the least impact. However, environmental improvements continue to be made through the installation of smoke alarms and residential sprinkler systems.

The fire service is building new partnerships to enhance the delivery of fire safety programs.

In order to evaluate existing initiatives and identify injury trends, improvements are required in the collection and dissemination of fire statistics. The provincial fire loss reporting system has recently been automated to provide on-line reporting of fire incidents at the community, regional and provincial level. Expansion of the system's capability provides the opportunity to increase the range of data collected.

Strategies:

☐ **Provide leadership and coordination through the cooperation of the Fire Safety Advisory Council, the various fire suppression, public education, prevention and protection agencies and other relevant organizations.**

- expand partnerships e.g. new organizations, corporate sponsorships
- develop coalitions at the community, regional and provincial level
- develop a provincial interagency Juvenile Firesetter Program

☐ **Provide awareness and education in the prevention of fire-related injuries and deaths.**

- promote fire safety awareness e.g. Burn Awareness Week, Fire Prevention Week, Fire Safety Houses
- provide educational resources e.g. Learn Not to Burn, Fire Prevention Week program, Fire Safety Houses, Fire and Life Safety Houses, Juvenile Firesetter Programs
- provide educational resource review process for fire and life safety programs
- continue the development of position papers on fire-related topics
- increase awareness regarding the hazards of fireworks

☐ **Promote environmental change and enforce regulations.**

- promote use of safety products and equipment e.g. smoke alarms, fire extinguishers, sprinklers
- enforce provincial and municipal safety regulations and bylaws e.g. Fire Service Act, BC Fire Code, and BC Building Code
- pursue the enactment of provincial fireworks legislation
- pursue legislative change to deal effectively with juveniles involved in fire setting

☐ **Build on data collection and research initiatives for fires.**

- identify and evaluate data sources and improve surveillance systems
- increase the research and development conducted on fire-related injuries
- collect and evaluate data on incidents of juvenile firesetting

Key Agencies:

Ministry of Municipal Affairs and Housing, Fire Safety Advisory Council
Ministry of Municipal Affairs and Housing, Office of the Fire Commissioner
Fire Departments
Ministry of Forests, British Columbia Forest Service, Protection Branch
Safe Start

Ministry of Health, Community Care Facilities Branch
British Columbia Crime Prevention Association

Objective 3:

To reduce drownings and water-related injuries.

Targets/ Indicators:

- Reduce drownings by 10% by the year 2001 for ages birth to 24.
  Baseline:
  An average of 41 deaths occurred each year from 1990 to 1994. This is equivalent to an average annual rate of four deaths per 100,000 population.[19]
- Reduce water-related injuries by 10% by the year 2001 for ages birth to 24.
  Baseline:
  An average of 57 hospitalizations occurred each year from 1990/91 to 1994/95. This translates into an average annual rate of five hospitalizations per 100,000 population.[20]
- Reduce diving-related injuries by 10% by the year 2001 for ages birth to 24.
  Baseline:
  An average of 37 hospitalizations due to diving/jumping into a swimming pool occurred each year from 1990/91 to 1994/95. This is equivalent to an average annual rate of three hospitalizations per 100,000 population.[21]

Sources: Deaths: The Canadian Red Cross Society.
Hospitalizations: Ministry of Health, Regional Performance Analysis Branch.

Issues: Bodies of water provide a major source of recreational and vocational opportunity for many people in British Columbia. Tragically, in 1993, there were 127 drowning cases in the province.[22] Ten of these fatalities were children under the age of five who were involved in recreational activities, general activities near water, or transportation incidents. Natural and artificial bodies of water posed equal risk for toddlers.

Educating the public is essential to developing healthy attitudes and behaviours.

The factors contributing to water-related fatalities are clear. Environmental factors include weather, light conditions and number of people in proximity to the individual at risk at the time. Personal factors are personal skills, acute medical conditions, and drug and alcohol use. Equipment factors include those elements which may determine survival - life jackets, personal flotation devices, fencing, and gates.

Educating the public is essential to developing healthy attitudes and behaviours. Together, working with the injury prevention community, we will effect social change to reduce the number of preventable drownings and related injuries in British Columbia.

Strategies: ☐ **Increase awareness, knowledge and education.**

- develop a comprehensive, targeted water-safety promotion campaign
- develop contacts through presentations at community, school and service group events
- ensure involvement in trade shows, recreation conferences, injury prevention seminars and community health fairs
- access CD-Rom programs for schools and the Internet
- develop cooperative coalitions and partnerships with appropriate organizations and ministries
- develop appropriate interventions for risk reduction that take into account culture, ability, age, and development
- provide quality water-safety training (Learn-to-Swim Program, Backyard Pool Safety, Life Jacket Use, Safe Boating Practices)
- provide quality rescue and resuscitation training (CPR/First Aid, Learn-to-Swim, Babysitter, Lifeguarding, Rescue Courses)
- promote injury-free diving, including campaigns targeting backyard pools and cliff diving
- educate novice and experienced boaters about the relationship between alcohol use and boating injuries
- ensure awareness activities, educational strategies and training are accessible to all, particularly high risk groups
- build a social norm for behaviour by developing community-wide, multi-facetted approaches to prevention

☐ **Act as an advocate, draft policy, and enforce regulations.**

- promote safe swimming environments (e.g. pool fencing, non-slip decks)
- enforce current legislation and municipal codes
- ensure that policies developed through the political process empower communities
- ensure resources are available to carry out required actions

☐ **Expand data collection and research initiatives pertaining to water-related injuries.**

- conduct research (alcohol and boating, environmental contributors, rescue factors) and distribute findings to stakeholders and the media
- evaluate strategies based on established criteria

Key Agencies:

British Columbia Injury Prevention Centre
Burnaby Health Department
Canadian Red Cross Society, BC-Yukon Division
Lifesaving Society
Ministry of Small Business, Tourism and Culture, Sport Services Branch
Ministry of Health, Community Care Facilities Branch
Ministry of Municipal Affairs and Housing, Office of the Fire Commissioner
Physical Education Provincial Specialist Association (PEPSA)
Safe Start

Objective 4:

To reduce industrial/workplace injuries and fatalities for youth ages 15 to 24.

Targets/ Indicators:

- Reduce the average number of industrial/workplace fatalities for youth ages 15 to 24 by 14% (two fewer fatalities) by 2001.
  Baseline:
  An average of 14 deaths occurred each year from 1990 to 1994. This translates into an estimated average annual rate of six fatalities per 100,000 person-years of employment.[23]
- Reduce the average number of industrial/workplace injuries for youth ages 15 to 24 by 10% (1,503 fewer injuries) by 2001.
  Baseline:
  An average of 15,026 injuries occurred each year from 1990 to 1994. This is equivalent to an estimated average annual rate of six injuries per 100 person-years of employment.[24]

Source: Fatalities and injuries: Workers' Compensation Board, Statistical Services Department.

Issues: From 1990 to 1994, there were 69 work-related fatalities among workers under 25 years old,[25] and the Workers' Compensation Board (WCB) accepted a total of 75,130 wage-loss claims from workers in this age group.[26] The cost of claims for the period from 1991 to 1995 was over 160 million dollars.[27] This figure includes only short and long term disability, and survivors' costs.

The majority of young workers who were injured, were injured while working in the retail trade, in manufacturing, and in construction.[28] Males are at greater risk than females by a ratio of 3.5:1.

The increased risk experienced by young workers may be attributed to a number of factors such as lack of training and experience, physiological factors, risk taking

behaviour, and/or a sense of invulnerability.

These findings highlight the importance of occupational health and safety education and training programs tailored to specific industries. Also important is the need to analyse the characteristics of the most hazardous work scenarios so that effective countermeasures can be planned.

Workplace fatalities and injuries to youth are unacceptable.

Strategies:

☐ **Create a community environment in which workplace fatalities and injuries to youth are unacceptable.**

- encourage industry, business and labour group stakeholders to focus on safety issues and preventive strategies affecting younger workers through the development of coalitions and industry-specific task forces

☐ **Provide public awareness and education.**

- develop and incorporate relevant occupational health and safety education at appropriate points in the school curriculum
- increase awareness of the problems of workplace safety for young workers among employers, parents, and teachers through promotional materials
- develop an annual awareness campaign focused on young workers
- provide materials and support to safety-oriented community groups, employer-based safety committees, unions, small employers, umbrella associations and industry groups

☐ **Support enforcement of existing occupational health and safety legislation and advocate new policies and legislation where appropriate.**

- advocate for increased sanctions for employers found to be consistently violating safety regulations
- advocate for more frequent inspections in industries experiencing high young worker injury/fatality rates, with a priority on employers with high claim frequencies

☐ **Promote safer workplaces.**

- advocate for technological changes to prevent injuries in the workplace

- ☐ **Conduct research to identify risk factors associated with hazardous occupations and demonstrate cost-effectiveness of prevention strategies.**
- expand research in the identification of factors specific to young workers by injury and industry

Key Agencies:

British Columbia Safety Council
British Columbia Occupational Health Nurses
  Professional Practice Group
Emergency Nurses Group of British Columbia
Insurance Corporation of British Columbia (ICBC)
Ministry of Health, Population Health Resource Branch
Ministry of Transportation and Highways,
  Motor Vehicle Branch
Simon Fraser University
Skeena Health Unit
University of British Columbia,
  Department of Health Care and Epidemiology
Workers' Compensation Board of British Columbia

Objective 5:

To reduce home and residential injuries.

Targets/ Indicators:

- Reduce deaths due to home and residential injuries by 10% by the year 2001 for ages birth to 24.
  Baseline:
  An average of 39 deaths occurred each year from 1990 to 1994. This translates into an average annual rate of three deaths per 100,000 population.[29]
  The average yearly number of deaths by category: falls - nine; struck by object - four; burns from hot substances - none; poisoning - 18; suffocation - eight.
- Reduce home and residential injuries by 10% by the year 2001 for ages birth 24.
  Baseline:
  An average of 5,201 hospitalizations occurred each year from 1990/91 to 1994/95. This is equivalent to an average annual rate of 446 hospitalizations per 100,000 population.[30]
  The average yearly number of hospitalizations by category: falls - 3,396; struck by object - 1,028; burns from hot substances - 185; poisoning - 478; suffocation - 115.

Sources: Deaths: Ministry of Health, Vital Statistics Agency. Hospitalizations: Ministry of Health, Regional Performance Analysis Branch.

Issues: The home has traditionally been considered a safe and nurturing place. However, this is not always so. Every year, many children are injured by common household items, sometimes resulting in serious injury and even death. A large percentage of childhood injuries occur in the home, with young children at particularly high risk.[31] Some household environments have a higher than average risk for injuries.

> Removal of environmental hazards has been viewed as the most effective way to reduce childhood injuries.

Strategies to reduce these injuries include the development of multi-lingual and plain language resources, and enabling families to live in safer environments, especially in rental

and rural homes.

The frequency and nature of home injuries shows an association with children's developmental stages. For example, infants' limited mobility, strength and coordination puts them at greatest risk from falls, followed by suffocation.[32] Toddlers, with their increasing curiosity and emerging physical dexterity are especially vulnerable to falls and poisonings. Falls are also the leading cause of injury among preschool and elementary school children.

Approaches to reducing household injuries are based on a combination of intervention strategies including safer technology, legislation, enforcement, public education, and awareness. Removal of environmental hazards has been viewed as the most effective way to reduce childhood injuries. Parents and caregivers need information about potentially hazardous environments, especially since most injuries occur in an environment that seems safe to parents and caregivers.

Strategies: **Falls and Struck by Object**

□ **Raise awareness and develop educational programs regarding the preventability of falls with respect to household injuries.**

- develop an awareness and educational strategy informing parents and caregivers of home safety hazards based on a child's developmental stage and cultural background
- provide support and information for latchkey children
- provide examples of safe home designs in demonstration homes

□ **Promote environmental change and changes in regulations.**

- improve home safety (e.g. stairs, fencing, windows, furniture, secured stair gates)
- promote safer furniture (e.g. stoves, bunk beds, changing tables, straps on high chairs)

□ **Promote advocacy leading to policy and legislation changes resulting in safer homes and residential environments.**

- advocate for increased building code compliance in new homes and renovations of existing homes

- involve manufacturers and retailers of household products in resolving product safety issues

Strategies: Burns from Hot Substances

☐ **Raise awareness and develop educational programs regarding the preventability of burns due to hot substances with respect to household injuries.**

- promote "hot water burns like fire" campaigns
- develop a multi-cultural strategic plan for scald prevention
- develop an awareness tool (thermometer cards) for parents and caregivers about hot water safety
- incorporate scald prevention information in fire safety houses
- develop safety centres where parents and caregivers have "hands on" opportunities to learn about safety and scald prevention

☐ **Promote environmental change and changes in regulations.**

- encourage the design of child resistant tea and coffee mugs
- explore lower cost technology for reducing home temperatures of hot water tanks
- ensure availability of retrofit scald safety devices and post cylinder thermostatic control valves

☐ **Promote advocacy leading to policy and legislation changes resulting in safer homes and residential environments.**

- establish safety codes for the setting of hot water temperatures in BC rental properties
- collaborate with regional health boards and key organizations to develop a pilot water safety program to decrease hot water temperatures in homes
- propose and facilitate changes to building and plumbing codes

Strategies: Poisoning

☐ **Provide leadership and coordination.**

- strengthen/develop coalitions and new partnerships to undertake initiatives to reduce poisonings
- expand Poison Prevention Week to include other

organizations
- seek corporate partnerships

☐ **Raise awareness and develop educational programs regarding the prevention of poisoning with respect to household injuries.**
- translate Poison Prevention Week materials into other languages
- make education programs available through the health regions with support and participation from the British Columbia Drug and Poison Information Centre
- network with parents' groups to expand education programs
- continue annual conference on the Rational Treatment of the Poisoned Patient and expand to feature prevention strategies

☐ **Promote environmental changes and changes in regulations.**
- promote proper storage and disposal of unused prescription and non-prescription medications
- promote proper storage and disposal of dangerous household products (e.g. paints and cleaning agents) by environmentally safe procedures
- target specific agents such as lead and other heavy metals to reduce exposure and availability
- promote the increased use of carbon monoxide detectors in the home

☐ **Promote advocacy leading to policy and legislation changes resulting in safer homes and residential environments.**
- introduce proper labelling of household plants at point of sale so that identification of potential toxicity is assured and/or require information be given to persons purchasing household plants

☐ **Improve data surveillance and research.**
- produce reports based upon the actual substance(s) involved
- report poisonings by age, gender, local health area and/or regional health district
- seek data linkages to assess health outcomes of persons who have been poisoned

- provide increased access to poisoning statistics using cost recovery

Strategies: **Suffocation/Choking**

☐ **Raise awareness and develop educational programs regarding the preventability of suffocation with respect to household injuries.**

- develop an awareness campaign for parents and caregivers about products and household items which can lead to suffocation and choking (e.g. pacifiers, food, batteries, waterbeds, mattresses, pillows and furniture, farm equipment and storage of old appliances)
- create awareness about the potential dangers of cords on children's clothing especially in playground, school and recreational settings
- encourage parents, caregivers, and older children to become knowledgeable about first aid techniques for choking; identify multicultural groups and agencies which can become involved in a "train the trainers" program
- identify children at greatest risk for choking and suffocation and develop strategies for prevention

☐ **Promote environmental change and changes in regulations.**

- develop strategies for the creation of home "safety zones"
- promote redesigning of balloons to reduce choking hazard
- develop guidelines for the design of children's furniture to prevent entrapment and strangulation, first focusing on high chairs and the potential redesign of the safety T-strap

☐ **Promote advocacy leading to policy and legislation changes resulting in safer homes and residential environments.**

- advocate replacement of all cribs not complying with Canadian safety standards
- work with industry to promote removal of hazardous cords from children's clothing and other products for babies

Key Agencies:

...for all of Objective 5:

British Columbia Council for the Family,
  Nobody's Perfect Program
British Columbia Injury Prevention Centre
Burnaby Health Department
Emergency Nurses Group of British Columbia
Health Canada, Health Protection Branch, Western Region
Ministry of Health, Community Care Facilities Branch
Public Education Consulting and Marketing Inc. (PECAM)
Safe Start
Skeena Health Unit

...for Falls and Struck by Object:

British Columbia Council for the Family
British Columbia Crime Prevention Association
British Columbia Medical Association (BCMA)
British Columbia Safety Council
Canadian Red Cross Society, BC-Yukon Division

...for Burns from Hot Substances:

British Columbia Council for the Family
Canadian Red Cross Society, BC-Yukon Division
Fire Departments
Ministry of Municipal Affairs and Housing,
  Fire Safety Advisory Council
Ministry of Municipal Affairs and Housing,
  Office of the Fire Commissioner

...for Poisoning:

British Columbia Drug and Poison Information Centre
  (DPIC)
British Columbia Medical Association (BCMA)
British Columbia Pharmacy Association
College of Pharmacists of British Columbia

...for Suffocation/Choking:

British Columbia Council for the Family
British Columbia Safety Council
Canadian Red Cross Society, BC-Yukon Division
Ministry of Health, Nutrition Section

Objective 6:

To define, quantify, and reduce sport and recreation injuries.

Targets/ Indicators:

- Reduce deaths and the number and severity of injuries resulting from sport and recreation activities for ages birth to 24.
  Data:
  An average of four deaths occurred each year from 1990 to 1994. Another 1,621 hospitalizations occurred each year from 1990/91 to 1994/95. This is equivalent to an average annual rate of 139 hospitalizations per 100,000 population.[33]
- Increase the number of agencies, associations and municipalities implementing injury prevention strategies.
- Increase the number of facilities/sites that meet and use sport safety standards.
- Improve access to high quality sport medicine expertise.

Sources: Deaths: Ministry of Health, Vital Statistics Agency. Hospitalizations: Ministry of Health, Regional Performance Analysis Branch.

Issues: Sport and recreation are an important part of many British Columbians' lives. Exercise prevents disease, improves well-being, and enhances mental health. Sport adds to the vitality and integrity of our society by transcending regional and cultural barriers, and affords participants an opportunity for self-fulfilment. Injury prevention aims to promote participation, fitness and enjoyment in sport by educating and protecting participants from acute and overuse injuries.

Data on sport and recreational injuries, and sport-specific injury surveillance is crucial in the identification of risk factors and in the planning, development and evaluation of injury prevention strategies. Existing information from general sources indicates that sport and recreation account for a large percentage of all unintentional injuries,[34] and over 50% of all school injuries.[35]

Building on the initiatives of many organizations, the incidence, consequences and cost of injuries can be reduced by enhancing coordination on priority issues, by developing consistent messages, and by effective sharing and delivery of programs. Recognized safety measures and standards can be identified, promoted and, where appropriate, enforced.

Changes in attitude and behaviours and adoption of safety guidelines and standards are vital to reducing injuries.

Promoting changes in attitude and behaviours that put participants at risk, and working with legislative and sport bodies to promote adoption of recognized safety guidelines and standards are essential to reducing sport and recreation injuries.

Strategies:

□ **To develop a systematic, coordinated approach and infrastructure which integrates sport injury surveillance, research and prevention activities.**[36]

- establish sport and recreation based injury surveillance systems
- develop methods for “small area sampling” of specific injury situations
- using findings, identify opportunities for injury-specific and sport-specific injury prevention strategies

□ **To promote positive attitudes toward sport injury prevention, improved knowledge in prevention of injury, and skills in basic injury assessment and management.**

- develop mass media campaigns to promote injury-free sport
- promote player, parent, sports trainer, official, coach, recreation and fitness leader education and training
- incorporate science and medicine support strategies into athlete development programs
- promote values, behaviours and attitudes reflecting safe actions (e.g. use of protective equipment, “fair play”, drug free and alcohol free, proper stretching before activity)

☐ **To develop and promote comprehensive hazard assessment and modification to reduce sport and recreational injuries.**

- develop and promote activity-specific safety guidelines
- conduct regular safety inspections of venues, facilities and equipment
- improve impact-absorbing surfaces and reduce excessive equipment heights in playground areas
- advocate for improved sport equipment

☐ **To develop and lobby for sport and recreation standards/legislation for the use of protective equipment, design, maintenance and operation of facilities/sites, and safety training of leaders.**

- develop a grass roots injury prevention network (sports trainers, coaches, etc.)
- develop sport-specific rule modifications
- tie sport-specific injury prevention initiatives to core funding
- recognize sport medicine as a specialty area

Key Agencies:

British Columbia Crime Prevention Association
British Columbia Injury Prevention Centre
British Columbia Medical Association (BCMA)
Burnaby Health Department
College of Dental Surgeons of British Columbia
Ministry of Small Business, Tourism and Culture, Sport Services Branch
Physical Education Provincial Specialist Association (PEPSA)
Skeena Health Unit
Sport Medicine Council of British Columbia

APPENDIX A: The Minister's Injury Prevention Advisory Committee

In the spring of 1995, the Honourable Paul Ramsey, then Minister of Health, convened the Minister's Injury Prevention Advisory Committee with a mandate to develop a coordinated, comprehensive approach to reduce unintentional injuries in British Columbia. The 16 members selected to serve on the committee reflect British Columbia's broad-based interest in injury prevention and control, and include key representatives drawn from among more than 150 voluntary, professional, private sector, government, and target population organizations which are focused on unintentional injury prevention for children and youth ages birth to 24 years.

The members are:

Dr. Shaun Peck, Deputy Provincial Health Officer, and Chair, Minister's Injury Prevention Advisory Committee
Kevin Begg, Director, Police Services Division, Public Safety and Regulatory Branch, Ministry of Attorney General
Derek Daws, Managing Director, British Columbia Drug and Poison Information Centre
Jan Engemoen, Commissioner, The Canadian Red Cross Society, BC-Yukon Division
Darlene K. Hyde, Vice President, Public Affairs and Road Safety, Insurance Corporation of British Columbia
Lidia Kemeny, Director, Safe Start
Bryan Lowes, Executive Director, British Columbia Safety Council
Grant Lupton, Deputy Fire Commissioner, Office of the Fire Commissioner,
Ministry of Municipal Affairs and Housing
Dr. Bill Mackie, Representative, British Columbia Medical Association
Dr. Carol Matusicky, Executive Director, British Columbia Council for the Family
Dr. Shirley McBride, Director, Special Programs, Ministry of Education, Skills and Training
Mike Mearns, Executive Director, Aboriginal Health Association of British Columbia
Janice Schmidt, Director, Traffic Safety Programs, Motor Vehicle Branch, Ministry of Transportation and Highways
Khalil Shariff, Chair, Health Youth Committee, Richmond Regional Health Board
Dr. Sam Sheps, Head, Department of Health Care and Epidemiology, Faculty of Medicine,
University of British Columbia
Lillian To, Executive Director, SUCCESS
June Wick, Coordinating Manager, Office for Injury Prevention, Ministry of Health (Ex-Officio Member)

Alternates:

Dr. Maria Barroetavena, Department of Health Care and Epidemiology, Faculty of Medicine,
University of British Columbia
Richard Grant, Fire Chief, Director of Fire Services, Fire Department, District of North Vancouver
Mary Harder, Director, Lower Mainland, The Canadian Red Cross Society, BC-Yukon Division
Dr. Debra Kent, Supervisor, Education Programs, British Columbia Drug and Poison Information Centre
Peter Leong-Sit, Health Youth Committee, Richmond Regional Health Board
Kirsten Pedersen, Senior Policy Analyst, Motor Vehicle Branch, Ministry of Transportation and Highways
Gary Reed, Program Manager, Police Services Div., Public Safety and Regulatory Br., Ministry of Attorney General
Claudia Roch, Assistant Director, Special Programs, Ministry of Education, Skills and Training
Dr. David Smith, Representative, British Columbia Medical Association
Wanda Trussler, Manager - Special Projects, Public Affairs and Road Safety,
Insurance Corporation of British Columbia
Kenn Whiteman, Contractor, BC Council for the Family

Secretariat:

Office for Injury Prevention, Ministry of Health
June Wick, Coordinating Manager; Michael Thomsen, Research Officer; and Karen Hathaway, Secretary and

Editor of the *Injury Prevention Stakeholder's News*

APPENDIX B: Organizations Endorsing the Plan

Ninety-one organizations have endorsed the plan.

A.L.T. International
Aboriginal Health Association of British Columbia
Associated Boards of Health of British Columbia
British Columbia Ambulance Service
British Columbia Automobile Association (BCAA)
British Columbia Brain Injury Association
British Columbia Council for the Family
British Columbia Council for the Family, Nobody's Perfect Program
British Columbia Crime Prevention Association
British Columbia Drug and Poison Information Centre (DPIC)
British Columbia Humane Education Society
British Columbia Injury Prevention Centre, a partnership of
  Vancouver Hospital and Health Sciences Centre and the BC Paraplegic Association
British Columbia Medical Association (BCMA)
British Columbia Ministry of Attorney General
  - BC Coroners Service
  - Police Services Division
British Columbia Ministry of Education, Skills and Training
British Columbia Ministry of Health and Ministry Responsible for Seniors
  - Community Care Facilities Branch
  - Environmental Health Assessment and Safety Branch
    - Office for Injury Prevention
  - Population Health Resource Branch
  - Prevention and Health Promotion Branch
    - Nutrition Section
    - Public Health Nursing Section
  - Public Health Protection Branch
British Columbia Ministry of Municipal Affairs and Housing, Office of the Fire Commissioner
British Columbia Ministry of Small Business, Tourism and Culture
  - Sport Services Branch
British Columbia Ministry of Transportation and Highways
  - Highway Safety Section
  - Motor Vehicle Branch
    - Drinking Driving CounterAttack Program
    - Traffic Safety Programs
British Columbia Pharmacy Association
British Columbia Research Institute for Child and Family Health,
  Centre for Community Child Health Research
British Columbia Safety Council
British Columbia's Children's Hospital
Boundary Health Unit
Burnaby Health Department
Canadian Association of Professional Lifeguards
Canadian Institute of Child Health
Canadian Red Cross Society, BC-Yukon Division
Canadian Standards Association (CSA)
Capital Regional District (CRD)
Cariboo Health Unit

Coast Garibaldi Health Unit
College of Dental Surgeons of British Columbia
College of Pharmacists of British Columbia
Diane C. Barei Consulting, Child Health and Advocacy
Directorate of Agencies for School Health (DASH)
Emergency Medical Planning Canada
Environmental Health Officers' Council
Fraser Valley Regional Multi-Sport Development Centre
Frederica Bowden - Specialist in Seamless Universal Access to Learning,
Living, and Play Spaces
Godfrey Engineering Services Ltd.
Health Canada, Health Protection Branch, Western Region
Health Canada, Medical Services Branch, Pacific Region
Health Officers' Council of British Columbia
Insurance Corporation of British Columbia (ICBC)
Kaiser Youth Foundation
LaMorte and Associates
Life-Line, CPR, First Aid and Safety Training
Lifesaving Society
The McCreary Centre Society
North Shore Health Department
Office of the Provincial Health Officer
Peace River Health Unit
Physical Education Provincial Specialist Association (PEPSA)
Public Education Consulting and Marketing Inc. (PECAM Inc.)
Public Health Nursing Administrators' Council
Registered Nurses Association of British Columbia (RNABC)
- BC Occupational Health Nurses Professional Practice Group
- Community Health Nurses Group
- Emergency Nurses Group of BC
- Pediatric Nurses Professional Practice Group

Richmond Cycling Committee
Richmond Regional Health Board, Health Youth Committee
Safe Kids Canada
Safe Start
Safety Play Systems Inc.
Simon Fraser University
Skeena Health Unit
South Central Health Unit
St. John Ambulance
SUCCESS
T.H.A. Media Distributors
University of British Columbia
- Department of Health Care and Epidemiology, Faculty of Medicine
- Institute of Health Promotion Research
- Road Safety Research Group

University of Victoria, School of Nursing
Vancouver Community College, Continuing Education, Early Childhood Education
Vancouver Hospital and Health Sciences Centre, Trauma Services
Westcoast Child Care Resource Centre
Young Drivers of Canada (YDC)

APPENDIX C: Data Sources, Endnotes, and Additional Resources

Data Sources

Figure 1: Data for British Columbia: Vital Statistics Agency, BC Ministry of Health. Victoria, April 1996. Unintentional injuries: ICD9 E800-E949. Age specific population estimates: BC STATS, Ministry of Finance and Corporate Relations; acquired from Health Planning Database, July 1995. Remaining deaths and population figures from: World Health Organization. *World Health Statistics Annual*, Geneva, annual. Accidental injuries: ICD9 E800-E949.

Figure 2: Hospitalization data: Regional Performance Analysis Branch, BC Ministry of Health. Victoria, April 1996. Transportation E800-E848 excluding E830 & E832; Falls E880-E888; Struck by Object E916-E918; Cutting/Piercing E920; Poisoning E850-E858 and E860-E869; Overexertion E927. Population estimate: BC STATS, Ministry of Finance and Corporate Relations; acquired from Health Planning Database, July 1995.

Figure 3: Hospitalization data: Regional Performance Analysis Branch, BC Ministry of Health. Victoria, April 1996. Unintentional injuries defined as ICD9 E800-E929 excluding E870-E876 and E878-E879. Population estimate: BC STATS, Ministry of Finance and Corporate Relations; acquired from Health Planning Database, July 1995.

Endnotes

1. BC Ministry of Social Services and Housing. *Inter-Ministry Child Abuse Handbook*, Victoria, 1988.

2. Vital Statistics Agency, BC Ministry of Health (deaths) and Regional Performance Analysis Branch, BC Ministry of Health (hospitalizations). Victoria, April 1996. Unintentional injuries defined as ICD9 E800-E929 excluding E870-E876 and E878-E879.

3. Donald T. Wigle, Yang Mao, Tina Wong & Rachel Lane. *Economic Burden of Illness in Canada, 1986*, *Chronic Diseases in Canada*, Supplement to Vol. 12, No. 3, May-June, 1991, Bureau of Chronic Disease Epidemiology, Laboratory Centre for Disease Control, Health Canada, Ottawa, Ontario, 1991, pp. 6, 26-27. The total cited excludes costs that could not be classified by disease category.

4. Regional Performance Analysis Branch, BC Ministry of Health. Victoria, April 1996. Estimate is based on the standard ward day cost of $705/day and 294,797 hospital days attributed to unintentional injuries (ICD9 E800-E929 excluding E870-E876 and E878-E879). Efforts are underway to provide better costing information; this is the current best guess.

5. Vital Statistics Agency, BC Ministry of Health (deaths) and Regional Performance Analysis Branch, BC Ministry of Health (hospitalizations). Victoria, April 1996. Traffic injuries defined as ICD9 E800-E848 excluding E830 and E832.

6. Regional Performance Analysis Branch, BC Ministry of Health. Victoria, April 1996. Falls defined as ICD9 E880-E888.

7. Sheps, S.B., & Evans, G.D. (1987). Epidemiology of school injuries: A 2-year experience in a municipal health department. *Pediatrics*, 79(1), pp. 69-75.

8. Vital Statistics Agency, BC Ministry of Health (deaths) and Regional Performance Analysis Branch, BC Ministry of Health (hospitalizations). Victoria, April 1996. Unintentional injuries defined as ICD9 E800-E929 excluding E870-E876 and E878-E879.

9. Regional Performance Analysis Branch, BC Ministry of Health. Victoria, April 1996. Unintentional injuries defined as ICD9 E800-E929 excluding E870-E876 and E878-E879.

10. Motor Vehicle Branch, BC Ministry of Transportation and Highways. *British Columbia Traffic Collision Statistics 1994*, Victoria, annual, pp. 61-2. Tables 10.09 and 10.10. Alcohol related collisions are those collisions where alcohol involvement was judged to be a contributing factor to the collision. This is a judgement made by an attending police officer in most cases and does not rely on formal measures of alcohol presence.

11. Vital Statistics Agency, BC Ministry of Health. *Analysis of Status Indians in British Columbia: A Vital Statistical Overview Volume 3: 1987-1993*, Victoria, 1995, p. v.

12. Rivara, F.P. & Bergman, A.B. (1991). Sweden's experience in reducing childhood injuries. *Pediatrics*, 88(1), pp. 69-74.

13. Department of Health and Community Services, State of Victoria, Australia. *Taking Injury Prevention Forward: Strategic Directions for Victoria 1994*, Melbourne, 1994.

14. Definitions:
Collision: The encounter of a moving vehicle with another moving vehicle or with a fixed object. Reportable in British Columbia when injury or death occurs or when greater than $1,000 aggregate property damage is sustained; in the case of a motorcycle when greater than $600 in damage is sustained; in the case of a cycle, when greater than $25 in damage is sustained.
Fatalities: Persons dying, within 30 days of traffic collision, from injuries sustained in incident (standard MVB/police definition).
Injuries: As reported to ICBC Claims system, and excluding soft-tissue injuries, commonly whiplash.

15. Public Affairs and Road Safety, Insurance Corporation of British Columbia. North Vancouver, June 1996.

16. Unintentional injuries resulting in death due to fire & flames, and hot substances defined as ICD9 E890-E899 and E924.

17. Unintentional injuries due to fire & flames, and hot substances defined as ICD9 E890-E899 and E924.

18. Vital Statistics Agency, BC Ministry of Health (deaths) and Regional Performance Analysis Branch, BC Ministry of Health (hospitalizations). Victoria, April 1996. Unintentional injuries due to fire & flames, and hot substances defined as ICD9 E890-E899 and E924.

19. Definition of drowning: to suffocate accidentally by submersion in water.

20. Unintentional injuries due to drowning defined as ICD9 E830, E832, and E910.

21. Unintentional injuries due to diving or jumping into water (swimming pool) defined as ICD9 E883.0.

22. The Canadian Red Cross Society, BC-Yukon Division & the Lifesaving Society. *British Columbia and Yukon Drowning Summary Report 1995*, Vancouver, 1995, p 3.

23. The fatality rate is based on the number of fatal claims per 100,000 person-years of employment. One person-year is the equivalent of 52 paid weeks of employment, whether worked by one individual or several.

24. The injury rate is based on the number of short-term disability claims per 100 person-years of employment. One person-year is the equivalent of 52 paid weeks of employment, whether worked by one individual or several.

25. Statistical Services Department, Workers' Compensation Board of BC. Vancouver, April 1996.

26. Statistical Services Department, Workers' Compensation Board of BC. Vancouver, April 1996.

27. Prevention Division, Workers' Compensation Board of BC. Vancouver, October 1996.

28. Workers' Compensation Board of BC. *WorkSafe Focus Report: Protecting Young Workers*, Vancouver, 1996, p. 14.

29. Unintentional injuries resulting in death defined as follows: falls ICD9 E880-E888; struck by object ICD9 E916-E918; burns from hot substances ICD9 E924; poisoning ICD9 E850-E858, E860-E869; suffocation ICD9 E911-E913.

30. Unintentional injuries defined as follows: falls ICD9 E880-E888; struck by object ICD9 E916-E918; burns from hot substances ICD9 E924; poisoning ICD9 E850-E858, E860-E869; suffocation ICD9 E911-E913.

31. Regional Performance Analysis Branch, BC Ministry of Health. Victoria, April 1996. Unintentional injuries defined as ICD9 E800-E929 excluding E870-E876 and E878-E879. Home includes apartment, boarding house, house, home premises (e.g. driveway, garden, swimming pool), and noninstitutional place of residence.

32. Regional Performance Analysis Branch, BC Ministry of Health. Victoria, April 1996. Falls defined as ICD9 E880-E888 and poisoning as ICD9 E850-E858 and E860-E869.

33. Unintentional injuries defined as ICD9 E800-E929 excluding E870-E876 and E878-E879. Place for recreation and sport includes amusement park, golf course, gymnasium, holiday camp, playground (including school playground), public park, racecourse, resort, riding school, rifle range, skating rink, sports ground, stadium, swimming pool (public), tennis court.

34. Regional Performance Analysis Branch, BC Ministry of Health. Victoria, April 1996. Unintentional injuries defined as ICD9 E800-E929 excluding E870-E876 and E878-E879. Place for recreation and sport includes amusement park, golf course, gymnasium, holiday camp, playground (including school playground), public park, racecourse, resort, riding school, rifle range, skating rink, sports ground, stadium, swimming pool (public), tennis court.

35. Schools Protection Program, Risk Management Branch, BC Ministry of Finance and Corporate Relations. Victoria, May 1996. Activities include sport events, sports related class, unorganized sports, and recess/pre or post classroom.

36. Department of Health and Community Services, State of Victoria, Australia. *Taking Injury Prevention Forward: Strategic Directions for Victoria 1994*, Melbourne, 1994, p. 43.

Resources available from the Office for Injury Prevention, Environmental Health Assessment and Safety Branch, BC Ministry of Health

- *British Columbia Directory: Unintentional Injury Prevention Programs for Children and Youth Second Edition 1995*
- *Injury Facts and Prevention Strategies for Children and Youth* (1993)
- *Healthy Communities: The Process, A guide for volunteers, community leaders, elected officials and health professionals who want to build healthy communities* (1994)
- *Injury Prevention Stakeholder's News* (published every two months)
- Unintentional injury data: deaths and hospitalizations by age, gender, and external cause, at the community, regional and provincial levels
- *Child Safety Updates*: series of posters on a wide range of injury prevention topics concerning children ages birth to six
- Health Files #3.9 *Swimming Safety Tips* and #27a *Hot tubs: Health and Safety Tips*
- Articles on selected injury and injury prevention topics, e.g. bicycle helmet use