

UNINTENTIONAL INJURY PREVENTION LEGISLATION IN CANADA

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INTRODUCTION

Unintentional injuries are among the leading causes of death and disability for Canadians between the ages of 1-44 years. To respond to the burden of injury, policymakers have invested significant resources to the development of legislation designed for health protection, however the investment in injury prevention has not always been explicit. In fact, outside of the major areas of injury including motor vehicle crashes and fire prevention, legislation has been developed to target mostly consumer product and environmental risk factors (Health Canada, 1996). The rationale behind this policy investment has been environmental strategies (e.g safe water, fluoridation, lead abatement, public smoking, seat-belt laws) to garner the support needed at the individual level to implement the laws on a broad scale (CDC, 1992). Laws explicit to the field of injury prevention have yet to garner the same level of support.

Due to the lack of injury prevention laws, legislation has become a component of several injury prevention models. Injury prevention models using legislation include the 4 E's of Injury Prevention and The Spectrum of Prevention Model. In the 4 E's of Injury Prevention, legislation is captured in the enforcement and enactment of laws (McCallum & McKay 2003). The enforcement and enactment of laws attempts to reduce dangerous behaviours through abiding the law (McCallum & McKay, 2003). The Spectrum of Prevention Tool consists of six levels of increasing scope including developing strategies to change laws and policies and influence outcomes (Cohen & Swift, 1999).

While public policy legislation for injury prevention is one of many effective means to reduce injury, not all jurisdictions are equal in their ability to make injury prevention a priority. To determine the extent to which federal, provincial and territorial legislation has been developed for injury reduction, this project will provide an inventory of injury prevention-related legislation at the federal, provincial and territorial levels.

Purpose and Objectives

The purpose of this project is to summarize the current legislation related to unintentional injury prevention in Canada. The objectives of the project are to:

1. Develop a search methodology for obtaining the legislation and for retrieving peer-reviewed research related to that injury prevention-related legislation
2. Design a template for documenting Canadian legislation related to the prevention of unintentional injury
3. Provide details and specifications related to each piece of legislation, including the citations of related published peer-reviewed research

METHODS

Definitions

Acts or Statutes

For this project, legislation refers to written laws, often referred to as Acts or statutes, which are enacted by Parliament, the legislative arm of government. Draft legislation, called a bill, is introduced to Parliament and requires the assent of the House of Commons, the Senate and the Crown to become law.

Bills

Bills are proposed Acts of the Legislative Assembly. When a Bill has passed Third Reading and received Royal Assent, it becomes an Act and part of *The Statutes of (Province)*. Provincially, government bills propose laws that are either passed into statutes or are not passed and left as bills.

Regulations

The provinces have the authority to create municipalities and to delegate to them, certain law-making powers. The laws which municipalities are permitted to pass are called by-laws.

Search Strategies

The strategy will involved searches for federal, provincial and territorial legislation related to the prevention of unintentional injury enacted up until 2006.

Federal Legislation

To obtain federal legislation, the Department of Justice Canada List of Statutes was accessed. Acts were searched in alphabetical order. Acts related to public health, safety and specific injury topics (motor vehicle, fire prevention) were reviewed to find relevant content on injury prevention.

Provincial Legislation

To obtain provincial legislation, a comprehensive search of legislative libraries for all provinces was conducted. Legislative libraries included:

Legislative Assembly of British Columbia;
Government of Alberta Laws and Regulations;
Government of Saskatchewan Publication Centre;
Legislative Assembly of Manitoba;
Legislative Assembly of Ontario;
Les Publications du Quebec;
Nova Scotia Legislature;
Legislative Assembly of New Brunswick;
Legislative Assembly of Prince Edward Island;
House of Assembly Newfoundland and Labrador;
Legislative Assembly of the Northwest Territories;
Legislative Assembly of Nunavut; and
Legislative Assembly of the Yukon

Acts were searched in alphabetical order. Acts related to public health, safety and specific injury topics (motor vehicle, fire prevention) were reviewed to find relevant content on injury prevention. To determine whether the search strategy was precise at locating relevant legislative content, source documents were consulted to develop a master list of legislation. The master list of legislation was compared to completed templates to determine percentage of concordance (or overlap). If the provincial search strategy yielded at least 60% concordance, the research team was confident that the search strategies were reliable.

Peer Reviewed Literature

To obtain peer reviewed literature, a comprehensive search for published studies on legislative interventions related to unintentional injury prevention was conducted. Peer-reviewed literature was searched on both PubMed and Transport databases. The inclusion criteria for peer-reviewed literature was:

- 1) Evaluation of a legislative unintentional injury prevention intervention;
- 2) Evaluation involved Canadian research or research conducted on a Canadian population;

3) Evaluations were outcome or impact evaluations.

Data Collection and Extraction

One of the project objectives was to develop and populate a template on unintentional injury prevention legislation, both provincial and federal, and to highlight the relevant aspects of the legislation. For each legislative act, the following information was extracted:

Type of Injury
Province
Provincial Legislation Name
Act or Bill No
Jurisdiction
Date Enacted
Date Terminated (if applicable)
Purpose and Coverage
Linkage to Peer Reviewed Research
Key Informant Assessment
Additional Information
Regulations, Standards and Guidelines

Analysis

Qualitative analysis of provincial and federal legislation was conducted to determine the level of coverage of unintentional injury prevention legislation. Provincial analysis involved comparing the content of unintentional injury prevention legislation across provinces and geographic regions in Canada (Western, Eastern, Maritimes, Northern). Templates were also examined to determine where unintentional injury prevention priorities existed at both provincial and federal levels.

RESULTS

Templates

The federal and provincial templates are provided in a companion document. The order of the template injury topics were: burn-related injuries, drowning-related injuries, falls-related injuries, fire-related injuries, occupation-related injuries, poisoning-related injuries and motor vehicle-related injuries. Motor vehicle-related injuries also had sub-categories of bicycle (referring to helmet legislation), impaired driving, off-road (referring to off-road and all-terrain vehicles), speed and traffic control.

Search Results

From the search of federal acts, 16 pieces of legislation were identified that were relevant to injury prevention. From the federal acts, the top 4 unintentional injury prevention priority areas that emerged were poisoning-related injuries (7), motor vehicle-related injuries (3), sport-related injuries (2) and occupation-related injuries (2).

Table 1: Federal Unintentional Injury Prevention Legislation Templates by Topic

Burns	Drowning	Falls	Fire	Motor Vehicle	Occupation	Poisoning	Sports	Railway	Total
0	0	0	1	3	2	7	2	1	16

From the search of provincial acts, 318 pieces of legislation were identified that were relevant to injury prevention. Examining legislation by area of Canada, it was found that provinces in Western Canada demonstrated the highest numbers of legislative pieces (105), followed by Atlantic Canada (99) and Eastern Canada (61). Provinces located in Northern Canada had fewest pieces of injury prevention legislation (53). Topic areas of injury prevention legislation were

consistent by each area and the top 3 types were motor vehicle-related injuries (140), poisoning-related injuries (64) and fire-related injuries (52).

Table 2: Provincial Unintentional Injury Prevention Legislation Templates by Area of Canada

Area of Canada	Burns	Drowning	Falls	Fire	Motor Vehicle	Occupation	Poisoning	Sports	Total
Northern NU, YT, NWT	0	0	0	9	22	8	14	0	53
Western BC, AB, SK, MB	1	1	2	21	42	10	28	0	105
Eastern ON, PQ	1	0	1	10	27	11	9	2	61
Atlantic NL, NB, NS, PEI	4	0	5	12	49	16	13	0	99
Total	6	1	8	52	140	45	64	2	318

Examining legislation by province demonstrated that Nova Scotia had the highest number of pieces of legislation (41) followed by British Columbia (39) and Newfoundland and Labrador (34). Provinces with the fewest pieces of unintentional injury prevention legislation were Nunavut (4), Prince Edward Island (5), Manitoba (19) and New Brunswick (19). Legislation was consistently found to be based on motor vehicle-related injuries, poisonings and fire. Underrepresented areas of unintentional injury prevention legislation were burn-related injuries (6), drowning-related injuries (1), and sports-related injuries (2).

Table 3: Provincial Unintentional Injury Prevention Legislation Templates by Province or Territory

Province/Territory	Burns	Drowning	Falls	Fire	Motor Vehicle	Occupation	Poisoning	Sports	Total
Alberta	0	0	0	5	8	4	6	0	23
British Columbia	1	1	1	7	12	1	16	0	39
Manitoba	0	0	0	5	10	2	2	0	19
New Brunswick	0	0	0	4	14	1	0	0	19
Newfoundland and Labrador	2	0	1	2	16	8	5	0	34
Northwest Territories	0	0	0	2	12	4	4	0	22
Nova Scotia	2	0	4	6	15	6	8	0	41
Nunavut (1999+)	0	0	0	3	0	1	0	0	4
Ontario	1	0	1	4	14	4	8	1	33
Prince Edward Island	0	0	0	0	4	1	0	0	5
Quebec	0	0	0	6	13	7	1	1	28
Saskatchewan	0	0	1	4	12	3	4	0	24
Yukon Territory	0	0	0	4	10	3	10	0	27
Totals	6	1	8	52	140	45	64	2	318

Searches of peer-reviewed literature were conducted using PubMed with search terms including injury, trauma, safety, legislation, policy, law, Canada. PubMed searches yielded articles focusing predominantly on bicycle helmet legislation evaluation (4), impaired driving legislation evaluations (5). Searches of the road transportation, rail transportation and transportation of dangerous goods literature and the Transport Database yielded 4 articles.

Concordance

The percentage of concordance of this search strategy and the Health Canada and Safe Kids Call to Action document was approximately 70 % suggesting that the search strategy demonstrated precision at locating relevant legislation.

DISCUSSION

Unintentional injury prevention legislation was markedly absent at the federal level. These findings suggest that the jurisdictions responsible for injury prevention are individual provinces and territories. While individual provinces and territories are well positioned to identify the public health needs of the population, federal legislation could also be effective at highlighting the injury issue. The development of federal legislation for physical sport and activity in 2003 is an example of legislation driven by public health issues. Given that a national injury prevention strategy has been developed, the next steps of raising awareness in the general population could be federal injury prevention legislation.

Areas of legislation that were underrepresented provincially were burns, falls and drowning related injuries. The absence of legislation addressing these injury topic areas could be due to municipal level legislation filling in the provincial and federal gaps. For instance, pool fencing is legislated by municipalities rather than laws (Safe Kids Canada, 2006). It is important that this project work is augmented with searches of regulations, standards and guidelines to gain a more complete understanding of injury prevention at the provincial and community levels.

Emerging Priority Areas

From this inventory of unintentional injury prevention legislation, the following areas emerged as potential priority areas:

1) Poisoning Related Injuries

Many pieces of legislation were identified as leading to poisoning prevention and were often related to food, water, pesticide use and pollutant use. It is possible that the substances reported in legislation are not reflective of the substances implicated in poisoning injuries. Research and advocacy efforts at the provincial level would assist in developing legislation targeting the most dangerous substances and most vulnerable populations.

2) Injury Prevention Legislation in Northern Canada

Unintentional injury prevention legislation in Northern Canada may be effective at lowering high injury rates among rural, isolated populations however legislation must consider the ways of living of the population in the North. In addition, understanding of the tensions surrounding existing Aboriginal legislation and the desire for self governance are also important issues.

Limitations

There were several limitations in conducting research to find unintentional injury prevention legislation. Lack of standardized procedures for publishing legislation from province to province created difficulties in locating relevant legislation. In addition, the available key word search functions for legislation were also unable to locate the relevant legislation.

There were also issues surrounding language as the term "injury" is not often explicitly used in legislation. Safety was found to be the term most commonly used when referring to injury prevention. Many acts articulated safety as being central to the goals of the act but were absent of injury prevention related content. For instance, the Public Health Act enacted in all provinces emphasized ensuring safety as a primary objective, however the act did not have content related to safety or to injury prevention. For many acts with safety as a mandate, governance of

responsibility to ensure safety of the population was often the focus of the act, rather than how to safeguard the population or prevent injuries. These findings suggest that perhaps thinking about injury prevention from an accountability lens rather than a population health lens may be appropriate when advocating for injury prevention legislation.

Future Directions

Intentional Injury

This project has determined that legislation for unintentional injury prevention does exist, however it is often under the guise of safety and accountability for safety. It is hypothesized that legislation addressing intentional injuries, such as suicides and violence, will be abundant due to the legal accountability of the individual and the justice system. It is recommended that a similar inventory process is undertaken for intentional injury prevention legislation.

Health-Related Data Legislation

Through this research, it has become apparent that a number of acts limit the availability of data for injury prevention research. It is recommended that a similar inventory process is undertaken to explore the supports and barriers to data collection and analysis at a provincial and federal level. An enhanced understanding of the limitations to health-related data would assist in strategic planning for coordinated national level injury prevention surveillance.

Summary

The purpose of the current project was to create a reporting template and populate it with information that profiles current legislation related to unintentional injury prevention in Canada. The resulting 16 federal and 318 provincial templates that were developed will allow for the gathering of information on standards, guidelines and municipal by-laws at a later date.

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APPENDIX A: LEGISLATIVE ACTS WITH INJURY PREVENTION COMPONENTS

FEDERAL ACTS

Canada Labour Code
Canadian Food Inspection Agency Act
Explosives Act
Food & Drugs Act
Hazardous Products Act
Motor Vehicle Transport Act
Pest Control Products Act
Physical Activity & Sport Act
Railway Safety Act R
Transportation of Dangerous Goods Act

TERRITORIAL ACTS

Yukon Territory

Dangerous Goods Act
Electrical Protection Act
Environment Act
Fire Prevention Act
Gasoline Handling Act
Liquor Act
Motor Vehicle Act
Occupational Health & Safety Act
Public Health & Safety Act
Waters Act

Northwest Territories

All Terrain Vehicles Act
Electrical Protection Act
Explosives Use Act
Mine Health and Public Safety Act
Motor Vehicle Act
Pesticide Act
Pharmacy Act
Public Highways Act
Safety Act
Transportation of Dangerous Goods Act

Nunavut

Consolidation of the Fire Prevention Act
Consolidation of the Technical Standards and Safety Act

PROVINCIAL ACTS

British Columbia

Agricultural Produce Grading Act
Commercial River Rafting Safety Act
Community Care and Assisted Living Act
Drinking Water Protection Act
Environmental Management Act
Fire Services Act
Food Products Standards Act
Food Safety Act
Health Act
Integrated Pest Management Act
Liquor Control and Licensing Act
Milk Industry Act
Mines Act
Motor Vehicle (All-Terrain) Act
Motor Vehicle Act
Transport of Dangerous Goods Act
Weed Control Act
Wildfire Act

Alberta

Dangerous Goods Transportation and Handling Act
Environment Protection and Enhancement Act
Forest and Prairie Act
Meat Inspection Act
Occupational Health and Safety Act
Traffic Safety Act

Saskatchewan

All Terrain Vehicles Act
Amusement Ride Safety Act
Dangerous Goods Transportation Act
Electrical Inspection Act
Environmental Management & Protection Act
Gas Inspection Act
Highways & Transportation Act
Noxious Weeds Act
Occupational Health & Safety Act
Prairie & Forest Fires Act
Snowmobile Act
Traffic Safety Act

Manitoba

Drinking Water Safety Act
Drivers and Vehicles Act
Fire Prevention and Emergency Response Act
Liquor Control Act
Off Road Vehicles Act

Wildfires Act
Workplace Health and Safety Act

Ontario

Dangerous Goods Transportation Act
Electricity Act
Fire Protection & Prevention Act
Food Safety & Quality Act
Health Protection & Promotion Act
Highway Traffic Act
Horse Riding Safety Act
Lightning Rods Act
Liquor License Act
Motorized Snow Vehicles Act
Occupational Health & Safety Act
Off-Road Vehicles Act
Ontario Water Resources Act
Pesticides Act
Physiotherapy Act
Weed Control Act

Quebec

An Act Respecting Explosives
An Act Respecting Industrial Accidents and Occupational Diseases
An Act Respecting Occupational Health and Safety
An Act Respecting Off-Highway Vehicles
An Act Respecting Safety in Sports
An Act to Ensure Safety in Guided Land Transport
Fire Safety Act
Forest Act
Highway Safety Act
Highway Traffic Code
Pesticides Act
Roadside Advertising Act
Transport Act

Newfoundland and Labrador

Dangerous Goods Transportation Act
Environmental Protection Act
Fire Prevention Act
Food and Drug Act
Highway Traffic Act
Labour Standards Act
Liquor Control Act
Motorized Snow Vehicles & All-Terrain Vehicles Act
Occupational Health and Safety Act
Public Safety Act
Public Utilities Act
Radiation Health and Safety Act
Workplace Health, Safety and Compensation Act (formerly Workers' Compensation Act)

New Brunswick

Electrical Installation and Inspection Act
Fire Prevention Act
Forest Fires Act
Forest Fires Act
Motor Vehicle Act
Occupational Safety Act
Off Road Vehicle Act

Nova Scotia

Amusement Devices Safety Act
Dangerous Goods Transportation Act
Electrical Installation & Inspection Act
Elevator and Lifts Act
Environment Act
Fire Safety Act
Fisheries and Coastal Resources Act
Forests Act
Health Protection Act
Labour Standards Code
Liquor Control Act
Motor Vehicle Act
Occupational Health and Safety Act
Off-highway Vehicles Act
Underground Hydrocarbons Storage Act
Weed Control Act

Prince Edward Island

Highway Traffic Act
Occupational Health and Safety Act

APPENDIX B: PEER REVIEWED RESEARCH

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