Injuries are not accidents - they are a preventable disease

Addressing the human dimension to injury prevention and control through education, intervention and co-operation

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Introduction

Injuries are a seriously under-recognized public health issue in Canada that should become a national health priority. No one is immune; individuals, families, employers, communities, the health care system and society bear the personal and economic burdens resulting from injuries.

Injuries can be defined under three broad categories: unintentional, intentional (suicide/self-harm and violence) and adverse events in medical care. The focus of this brief is on the first two as, for all intents, they remain ignored in Canadian public, social and economic policy.

The status quo for injury prevention in Canada is not an option; loss of quality of life, long-term physical and mental impairment and death are incalculable outcomes. This issue is not new to the Government of Canada. In a 2009 report published by Health Canada, the advisor on Child and Youth Health recognized this preventable disease and called for the creation of a National Injury Prevention Strategy. The Injury Alliance also recommended in its 2010 report the development of a strategy as a full service solution to the problem of injury in Canada.

The Public Health Agency of Canada estimates that injuries in Canada cost $20 billion per year in lost productivity.

Canadian facts are sobering:
• personal injury is the leading cause of death of children and young adults, exceeding all other causes of childhood deaths combined;
• one in every 53 employed workers in 2007 was injured on the job resulting in workers compensation;
• injuries involving Aboriginal people are two to four times higher than the general population; and
• more than four million Canadians aged 12 years and older suffered an activity-limiting injury — defined as impairing normal activities — from sprains, broken bones, cuts and burns in 2009.

During a typical year in Canada, injuries from falls and vehicular incidents alone currently account for more than 50 per cent of the 14,000 deaths and close to a quarter million hospital visits. Our emergency departments are overcrowded due to the high volume of injury related visits and elective surgeries are often cancelled because of trauma surgeries.

The traumatized patient is one of the sickest patients in health care.

Needless to say, the personal and social costs are staggering and pain and suffering are immeasurable. It is saddening that this suffering could be avoided because injuries are both predictable and preventable.
To put injuries in context in Canada, accidents, as termed by Statistics Canada, contributed to 4.2 per cent of all deaths in 2007 — the fourth leading cause behind cancer, heart disease and stroke — and suicides accounted for 1.5 per cent of all deaths. Deaths to injuries have actually increased in Canada from 3.9 per cent of all causes in 2000.

It is estimated that injuries accounted for 8% of direct and indirect costs of illness per year. Clearly injuries represent major contributors to our fiscal crisis in health care.

The effectiveness of injury prevention measures

There are feasible and sustainable solutions within our reach that save lives and dollars. Injuries can be prevented and some believe eradicated with social programs and campaigns that concentrate on the root causes and integrate the efforts of coordinated education campaigns, clinical practices, regulations, economic incentives or disincentives, progressive public policies and social support programs.

Other countries have successfully introduced integrated strategies that leverage the synergies from coordinated efforts using an injury control model that deploys surveillance, research and education with impressive results. For example:

- Australia’s Department of Health and Ageing has recognized the importance of injury prevention by identifying priority areas for action through its National Injury Prevention and Safety Promotion Plan: 2004 –2014. It considers the investment worthwhile based on continuing evidence and investigation through the National Injury Surveillance Unit of the Australian Institute of Health and Welfare, the National Coroners Information System and the National Poisons Register. In addition, the Australian Injury Prevention Network is a not-for-profit national non-governmental organization coordinating and facilitating the efforts of injury professionals including researchers, providers and policy experts. It is estimated
that reducing injuries in Australia by just under one-third would equal savings of over $370 billion which is greater than Australia's total net foreign debt\textsuperscript{12}.

- A 20-year study in Norway\textsuperscript{13} tracked the results of a multi-faceted injury prevention program from 1970 and 2001. Injury incidence rates dropped from 17.7\% to 9.7\%. This drop was influenced by a reduction of the incidence rate of traffic injuries by 77\% despite an increase in motor vehicles and a reduced incidence rate of injuries in occupational, home and other areas by 38 per cent, 35 per cent and 49 per cent respectively.

- Measured positive outcomes are well documented in the United States\textsuperscript{14}. Further evidence through a cost-outcome study in the United States shows that more than half of injury prevention programs yielded net societal cost savings by reducing medical costs and saving lives\textsuperscript{15}. In 2007 the Centers for Disease Control and Prevention published leading practice recommendations for effective education based on literature reviews of successful tobacco control programs in the United States\textsuperscript{16}. The study reported that an integrated effort combining education with clinical strategies, regulations, economic incentives or disincentives and social support resulted in significantly reducing destructive behaviours — particularly with youth.

These examples are not isolated cases; there are many more around the world and in Canada that demonstrate the power of injury prevention. A growing body of research shows that injury prevention campaigns are excellent investments in relieving the pressures on the health care system and generating a positive return to society.

The Public Health Agency of Canada reviewed several economic models based on a 2004 study that investigated economic analyses in Canadian public health\textsuperscript{17}. It was determined that, as a common rule of thumb in North America, spending US$70,000 (in today's dollars) on someone to alter their behaviour or educate them to prevent an injury more than pays for itself by returning wages, health care savings and the continuance of quality of life.

So what is the payback for a made-in-Canada solution to injury prevention and control? A strategy that covers education, intervention and monitoring could save of up to 10 cents of every dollar spent on health care and billions in lost productivity due to injury.

**Recommendations**

Tangible benefits for individuals, families, communities, employers, the health care system and the Canadian economy could quickly be felt by systematically addressing injuries, a preventable and costly disease in Canada. The following inter-connected recommendations lay the foundations that will make immediate inroads in injury prevention in Canada.

**Establish and fund a National Injury and Prevention and Safety Promotion Strategy with a ten-year horizon**

Modeled after the Australian federal government’s "National Injury Prevention and Safety Promotion Plan: 2004 – 2014\textsuperscript{18}", the Canadian plan should cover a ten year period of concentrated education, intervention and monitoring.

As a starting point, the strategy should be based on the following two pillars:
Create and fund The Canadian Injury Prevention Network (CIPN). Among its responsibilities, this oversight body will:

- link and facilitate the efforts of injury professionals across Canada including researchers, front-line responders, providers, policy experts, health and health care non-governmental organizations, governments, educational institutions and representatives from high-risk groups;
- support knowledge exchange and dissemination around effective strategies that aren’t being implemented;
- collect surveillance data beyond numbers – contextual data is essential for understanding and deploying the best interventions;
- support research on leading practices from domestic and international initiatives; and
- oversee a national injury prevention, education and intervention campaign that leverages and supports federal/provincial/territorial, local and grass-roots initiatives.

An investment of $25 million per year to support the CIPN will ensure that: high risk populations such as children, the elderly, young adults and Aboriginal people will receive the attention and support they deserve; give the federal government a strong lever to help sustain our nation’s health care system by helping to ensure that preventable costs associated to injuries are kept out of health care expenditures; and bolster Canada’s economy by reducing billions in lost productivity owing to injury.

Develop and fund a national injury prevention, education and intervention campaign that leverages and supports federal/provincial/territorial, local and grass-roots initiatives.

A pan-Canadian education and intervention campaign that leverages the expertise from injury experts, leaders and jurisdictions at local levels is essential to create a more safety conscious culture. Partners, stakeholders and high-risk groups who take an active role in endorsing, leading and advocating injury prevention and control are critical to segments of the population practising safety and managing risk.

An investment of $5 million per year by the government of Canada will support and coordinate social marketing and educational campaigns and targeted intervention measures for the populations in greatest need.

Conclusion

The Government of Canada must be applauded for identifying specific national health priorities in recent years and dedicating the requisite resources to advance them. Canadians are benefiting from these investments such as through the work of the Canadian Partnership Against Cancer and the Integrated Strategy on Healthy Living and Chronic Disease.

Similarly, a national focus and investment on injury prevention and control can result in significant improvements to the quality of life of Canadians and to alleviate resource burdens on our health care system. In its current form, the system in Canada is unsustainable. A cooperative strategy to entrench safety as a cultural norm in all aspects of our lives is the relief valve to reduce the growing pressure from needless injuries and deaths.
By investing $300 million over ten years, billions in health care dollars and lost productivity will be saved. The return on such a small investment cannot be ignored, nor can the human cost of injury.

Endnotes

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