Highlighting Injury Prevention in Ontario: It’s Worth the Investment
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Introduction

Everyone is at risk for injury. It is a serious societal and global issue with huge health, social, and economic implications, underscored by the fact that injuries claim the lives of 15,866 Canadians each year, with 5,785 of those deaths in Ontario alone.¹

Understanding how, when, and where injuries occur allows us to effectively challenge the notion that they occur by chance, emphasizing that injuries are predictable, controllable, and preventable events.

This document provides a basis for public health and injury prevention practitioners in Ontario to guide their approach when interacting with decision-makers to make a case for support.

Why is injury prevention important?

Injuries are a substantial cause of death and disability in Canada, but they are preventable. A Canadian study published in the American Journal of Public Health, “Diverging Trends in the Incidence of Occupational and Nonoccupational Injury in Ontario, 2004–2011,” shows that if injuries due to leisure, recreation or other non-work activities had fallen at the same rate as work-related injuries, there would have been 200,000 fewer injuries in Ontario in 2011. Dr. Cameron Mustard, one of the study’s authors, says, “A decline of 30 per cent in work-related injuries in just eight years is evidence that prevention efforts can have an impact.”² This speaks volumes to the need of systematically investing in community based interventions and strategies aimed at increasing awareness, demystifying injuries, implementing evidence-informed practices and expanding successful interventions across the province.

Moreover, it has been shown that prevention is extremely cost effective. Table 1 below shows some positive examples:³

<table>
<thead>
<tr>
<th>1 Dollar Spent on:</th>
<th>Produces Savings of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle helmets</td>
<td>$29</td>
</tr>
<tr>
<td>Child safety seats</td>
<td>$32</td>
</tr>
<tr>
<td>Road Safety Improvement</td>
<td>$3</td>
</tr>
<tr>
<td>Counselling by Paediatricians</td>
<td>$10</td>
</tr>
<tr>
<td>Poison Control Services</td>
<td>$7</td>
</tr>
</tbody>
</table>

Table 1: Cost-effective prevention
The annual human and financial cost of injury in Ontario is staggering. The economic burden of injury is immense across Canada. In fact, injuries result in a larger burden than some chronic conditions, such as heart disease and stroke. For example, in Alberta the emergency department cost of injury is $176 million while heart and stroke is $46 million, and cancer is $8 million. It is important to note that an October 2015 report from Alberta highlighted the complex relationships between prevalent chronic diseases and common types of injury, which helps make evident that injury is wrongly perceived as a small issue in comparison to chronic disease.
Working together

Over the years research has identified the types of injuries that contribute to the greatest burden, the groups that are most affected, the societal factors that have an impact on injury rates and the solutions that are proven to make a difference.

A comprehensive framework for injury prevention can address a broad range of risk factors and provides opportunity for intervention at many levels. Public health has a mandate for, as well as a long history of, collaboration with other stakeholders in law enforcement, fire, education, healthcare, the Ministry of Transportation, among others. The multi-faceted approach taken by public health uniquely positions it to work collaboratively with the community, public, and private sectors to create and mobilize comprehensive strategies to take action. Comprehensive injury prevention looks beyond individual knowledge and skills and includes action on policy, social and physical environments. Many of these strategies include the 3 E’s of Injury Prevention: Education, Enforcement and Engineering.\(^6\) A comprehensive strategy increases the likelihood of success.

When the story changes...

14-year-old boy seriously injured in cycling incident was not wearing a helmet

Parents anguish after teenage daughters turn to self-harm

Man in critical condition after fall from ladder

14-year-old boy seriously injured in cycling incident was not wearing a helmet

Mother lost daughter to distracted driving

89-year-old woman survives 4 days alone in shed after falling and breaking her hip

Baby killed when family car struck by drunk driver

Mother lost daughter to distracted driving

89-year-old woman survives 4 days alone in shed after falling and breaking her hip
These headlines above represent patterns that are just a small fraction of all that appear in our media everyday; they are headlines of events that resulted in injury and injury-related death that were predictable and preventable.

Each one of these events resulted in high direct costs to the health care system and indirect costs to the individual, family, and community. Let’s reflect on these situations. Health care costs include sending paramedics to the scene, the ambulance to the hospital, acute hospital treatment followed by rehabilitation. Some injuries may require a number of surgeries. The patient may be transported by air or ambulance to a trauma centre or a centre with a specialty such as toxicology. Family may need to take time off work and pay for accommodation close to the treatment centre, thus leaving the rest of the family in the care of others. If additional treatment is needed over the years, the family may need to take more time off work, pay for food and accommodation, and pay for caregiving for the rest of the family. These are only some of the immediate repercussions of injuries and death, but the are many others that cannot be quantified, such as emotional trauma, permanent partial or full disability, altered career implications, dramatic changes in future roles in family and society, loss of independent living and the necessity for institutional care. Table 2 shows a list of potential costs:

<table>
<thead>
<tr>
<th>Direct Costs</th>
<th>Indirect Costs</th>
<th>Costs that cannot be quantified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulance</td>
<td>Time away from work for both injured</td>
<td>Feelings of guilt/blame</td>
</tr>
<tr>
<td></td>
<td>and their families</td>
<td></td>
</tr>
<tr>
<td>Emergency response teams</td>
<td>Cost to employer to cover time off</td>
<td>Impact on mental health: Possible depression or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>anxiety</td>
</tr>
<tr>
<td>Emergency room care</td>
<td>Cost to insurance companies</td>
<td>Chronic pain</td>
</tr>
<tr>
<td>Surgery</td>
<td>Future increased car insurance rates</td>
<td>Disfigurement</td>
</tr>
<tr>
<td>ICU</td>
<td>Damage to vehicle</td>
<td>Altered physical or cognitive status</td>
</tr>
<tr>
<td>Physician and nurse costs</td>
<td>Court and legal fees</td>
<td>Changed social interaction: Attitude of friends,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>isolation, ability to integrate to the community</td>
</tr>
<tr>
<td>Home care costs</td>
<td>Home modifications to accommodate</td>
<td>Impact of friends and family relationships</td>
</tr>
<tr>
<td></td>
<td>disability</td>
<td></td>
</tr>
<tr>
<td>Ongoing treatments: Pharmacare,</td>
<td>Transportation restrictions: Modified</td>
<td>Change in mobility and in ability to do things</td>
</tr>
<tr>
<td>Rehabilitation, Physiotherapy</td>
<td>vehicle, Wheel-Trans</td>
<td>that were previously easy</td>
</tr>
<tr>
<td></td>
<td>Purchase of aids, medication,etc.</td>
<td>Reliance on others</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ability to work or have a career</td>
</tr>
<tr>
<td></td>
<td>Long-term disability’welfare</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Training for a new career</td>
<td></td>
</tr>
</tbody>
</table>
Evidence-Informed Practices

Reducing injuries by just 20% WOULD SAVE OVER $1.7 BILLION AND MORE THAN 1,100 LIVES IN ONE YEAR.10

The following case studies are examples of promising practices.

1. The Community Against Preventable Injuries (Preventable) is the first social marketing campaign targeted at reducing the burden of preventable injuries in British Columbia. This campaign strives to create opportunities for people to use their imagination and draw their own conclusions about the risks of injury. The impact has been very positive, showing a 26% decrease in injury deaths during the 2009-10 campaign period.

2. Kids Need A Boost is a booster seat campaign that aims to reach out to the parents and caregivers of the high number of children (70%) who are not using booster despite needing to do so. The initiative led my the Child Safety Coalition of Middlesex-London, offers educational events as well as booster seats at no cost.

3. Promoting November 2015 as Fall Prevention Month in Ontario was an initiative that involved 109 organizations that led 157 activities during the month of November reaching over 6,165 individuals, mainly through educational events. Social media was leveraged and helped engage local media producing 96 news pieces related to Fall Prevention Month.

4. Distracted Driving, a worldwide issue mostly among drivers under 25, has been addressed by the Ontario Ministry of Transportation (MTO), which banned the use of hand-held communication and entertainment devices and display screens in 2009. Stiffer penalties such as higher fines and demerit points as well as licence suspension for novice drivers upon conviction have as the objective effecting changes in attitudes, behaviour and mindsets akin to those already achieved in the areas of drinking and driving and seatbelt use.

5. SafeTALK is a half-day, evidence-based, suicide prevention workshop offered since 2015 by the City of Ottawa. The city’s initiative is the result of a partnership with the Ottawa Suicide Prevention Coalition and the Canadian Mental Health Association to promote and deliver safeTALK workshops in the community and in workplaces. Evaluations have shown improved outcomes for those at risk of suicide.

(Add local case study here)

While these case studies represent a good start, they are not enough on their own. Efforts like these need to be considered, implemented, expanded and sustained. For full text on these cases see Appendix 1.
Recommendations and Moving Forward

1. **Keep this document for preventable injuries on hand to guide your work.** If you have not already, put injury prevention on the agenda in your local and provincial arenas.
   - Look into local regional data and see how it affects your local citizens
   - Link with other organizations that are likely to have an impact on your issue, such as organizations focusing on mental health, obesity, neurological conditions, etc.
   - Facilitate discussions or round tables to bring people together around injury prevention
   - Meet with influential people in your area and bring this document along
   - Educate yourself about evidence-based initiatives in Ontario and across Canada
   - Use social media to keep ideas alive

2. **Focus on the three mechanisms of injury that are the highest burden: falls, transportation, and suicide/self-harm**
   However, injury is not exclusive to these three mechanisms. There may be others that are relevant to your community

3. **Look for synergies between strategies in injury prevention and other emerging priority areas of public health such as mental health, diabetes, obesity, cancer, substance misuse and neurological conditions such as Parkinson’s in order to make better use of resources and achieve the greatest positive impact.**

It is time to work together to implement evidence-informed practices that prevent injuries so that we can live long lives to the fullest. 

More than 90% of injuries are predictable and preventable. Prevention is the solution and the cure.

Ongoing investment in reducing injuries is crucial. It makes good business sense!
Appendix 1: Injury Prevention Case Studies

Case Study 1: The Community Against Preventable Injuries (Preventable)

The Community Against Preventable Injuries (Preventable) is the first social marketing campaign targeted at reducing the burden of preventable injuries in British Columbia.

The campaign works by broadcasting messages that are personal and relevant to a target population of those aged 25-55 years. This age group includes those who may be the parents of children and youth, as well as the children of older adults. The campaign is based on the phrase “You’re probably not expecting to…” completed by messages such as “…need a helmet today.” and “…drown today.”

The Preventable campaign strives to create opportunities for people to use their imagination and draw their own conclusions about the risk of injury, rather than using scare tactics or a lecturing tone, which were found to be less effective with the target demographic. It was launched with a mass media blitz supported by ambient and guerrilla messaging in key locations, such as school zones, beaches, and workplaces, as well as television and online media as these have been proven to be the most effective channels to reach the target audience. The campaign has been also implemented in Alberta.

Impact:
- During the 2009-10 campaign period, there was a 26% decrease in injury deaths
- Monitoring indicated a 5-10% positive shift in attitudes as self-reported precautionary actions, as well as support for the Preventable brand
- A significant reduction in deaths was seen for the 0-24 year age group during the same period, which represents the children of the target population

Preventable has been implemented in Alberta and work is underway to bring it to the Atlantic provinces.

Resources:
- www.preventable.ca
Case Study 2: Kids Need a Boost – Booster Seat Campaign

Injuries are predictable and preventable, especially injuries in children that are due to motor vehicle collisions. Although legislated, the prevalence of correct booster seat use is low. In Ontario, only 29.5% of children 4-8 years of age are correctly restrained.\(^{13}\)

The Child Safety Coalition of Middlesex-London, a community partnership, developed a booster seat campaign, Kids Need a Boost, implemented using the findings from the following evidence-based sources:

- A systematic review that indicates types of effective strategies (Ehiri et al., 2006)
- An example of an effective multi-faceted community education campaign (Ebel et al., 2003)
- Information about the types of messages that are needed to increase booster seat use (Bruce et al., 2011)
- A conceptual model of how product distribution is expected to change behaviour (Robinson et al., 2014)

An objective of the campaign is to raise awareness to parents and caregivers that booster seats are essential to the safety of their children. Education is provided to caregivers through health fairs, events, and presentations throughout London and Middlesex. Along with education to families, the campaign is offering free booster seats to those families who may qualify. A booster seat will be provided to families, as well as an information package that includes educational material about the use of booster seats and resources on where to go for help.

The goal of Kids Need a Boost is to reduce the incidence and severity of injuries caused by not using booster seats. The short term goals were to increase the parent/caregiver awareness of the benefits of booster seats and to reduce cost barriers to booster seats for low income families.

Impact:

- The long term impact is to reduce incidence and severity of injuries caused by not using booster seats
- Robinson et al., 2014 demonstrates successful behaviour change through product distribution over time
- Future local evaluation is being planned

Resources

- www.healthunit.com/booster-seats
Case Study 3: Promoting November 2015 as Fall Prevention Month in Ontario

In 2014, the Fall Prevention Community of Practice (www.fallsloop.com) identified the need to mobilize stakeholders in Ontario in a coordinated way to increase the impact of their work. Agencies were contacted to participate in the collaborative development and promotion of fall prevention messaging and activities during the month of November. This initiative mirrored the effort successfully implemented in Alberta.

Together, the Partners developed a theme and resources with a the key message: *It takes a community to prevent a fall - we all have a role to play.* All partners provided expertise and services to create a toolkit that included logos (in French and English). The toolkit was housed on the Ontario Injury Prevention Resource Centre (OIPRC) website. The initiative set a new precedent of a collaborative approach in Ontario. The resulting campaign attracted attention and interest from other Canadian provinces.

There were 1,791 unique downloads of the toolkit by the end of the November. The planning guides developed for exercise classes and the *Check Your Balance* activity were well received, as were the bilingual Fall Prevention month logos and the handout “Six Warning Signs of Falls.”

109 organizations reported participating in Fall Prevention Month, with at least one fall prevention initiative. At least 30 organizations partnered with other organizations to run their initiative. There were initiatives in all LHIN regions and a particularly strong showing in South West Ontario, with participation from varied sectors including public health, non-profit, private, government, university and hospital.

157 initiatives during November had a total reach of over 6,165 individuals. Over 600 health care workers are more aware of fall prevention best practices. The most common initiatives were handout distribution (87), presentations (70) and information booths (39). Webinars attracted the greatest number of attendees (1,845).

The social media hashtag #PreventFalls2015 was used in 497 tweets and a few dozen Facebook, LinkedIn and Tumblr posts. Fall Prevention Month initiatives garnered interest from local media too. There were 96 different news pieces related to Fall Prevention Month.
Case Study 4: Distracted Driving

Distracted driving is not just an issue for Ontario or Canada; the problem is a growing concern. Drivers who use cell phones are four times more likely to be in a collision than drivers who focus on the road. Based on current trends, distracted driving fatalities may overtake drinking and driving fatalities by 2016. Electronic communication device usage is prevalent among young drivers under the age of 25.

In an effort to combat distracted driving, the Ontario Ministry of Transportation (MTO) banned the use of hand-held communication and entertainment devices and display screens in 2009. The ban included texting, dialling and e-mailing, using iPods, MP3 players, laptop computers, DVD players, and programming a GPS device (other than by voice commands). The only penalties for distracted driving were fines.

MTO and road safety advocates who are interested in partnering with the ministry will assist in the delivery of a province-wide social marketing campaign to address driver distraction and other initiatives related to Bill 31, Making Ontario Roads Safer Act, 2015. This Act includes stiffer penalties for distracted drivers.

Past experience has demonstrated that MTO can leverage their support in terms of the delivery of social marketing products, and public service announcements, etc. To that end, MTO hired an ad agency to develop and implement a province-wide social marketing and public education strategy:

- The ad agency reached out to experts in medical, enforcement and safety organizations such as arrive alive Drive Sober, MADD, OPP, and Toronto Police among others, to get their insights
- Focus group testing took place in rural, northern, and 905, 416 area codes to gain insights from drivers aged 17 - 45
- The strategy will identify the best and most effective media to reach targeted audiences

The long-term objective of the Ministry is to effect change by changing attitudes, behaviour and mindsets, similar to what Ontario has already done with drinking and driving and seat belt usage.

Impact:
- On June 2, 2015, the province passed Bill 31, Making Ontario’s Roads Safer Act, 2015.
- Stiffer penalties upon conviction for distracted driving came into effect on September 15, 2015, which include higher fines and demerit points, and licence suspension for novice drivers.
Case Study 5: Ottawa becomes first municipality in Canada to offer safeTALK training to every employee.

Starting in the Fall of 2015, Ottawa became the first large city to offer safeTALK to all of its public employees. The Canadian capital employs over 17,000 staff, all of whom will have the opportunity to sign up for the training.

Over the last four years Ottawa Public Health (OPH) has partnered with the Ottawa Suicide Prevention Coalition and the Canadian Mental Health Association to promote and deliver safeTALK workshops in the community and in workplaces. SafeTALK is a half-day, evidence-based, suicide prevention workshop developed by LivingWorks. It teaches anyone over the age of 15, regardless of prior experience or training, to become alert to suicide and the steps to follow in order to keep people with thoughts of suicide safe by connecting them to life-saving intervention resources. The aim of this training in the workplace is to provide employers with skills in suicide prevention, to reduce stigma in the workplace and to encourage employees to reach out and seek support. The partnership between OPH, the Coalition and CMHA has allowed for a significant number of suicide prevention workshops to be conducted and community members to be trained. Since 2011, the Coalition, CMHA and other partners have trained over 6000 community members in safeTALK throughout Ottawa.

Recently the City of Ottawa added safeTALK to the corporate Learning Centre training curriculum, making it the first municipality in Canada to offer such training to all staff. The program is being offered through a partnership between Ottawa Public Health and the city’s Human Resources department.

Impact:

- Recent evaluation of the training in Ottawa has shown that 93% of participants now felt more comfortable to conduct a suicide intervention
- safeTALK provides opportunity for participants to increase their suicide awareness, resolve myths about suicide, and improved knowledge of intervention skills
- The training program offers participants guidance to consider how beliefs might impact a suicide intervention and to reflect on their willingness to intervene with a person who is distressed and having thoughts of suicide
- LivingWorks program evaluations regularly reflect an increase in participants’ knowledge, skills, and confidence, while a major study recently demonstrated that they also contribute to improved outcomes for those at risk of suicide.

Resources:  
ottawasuicideprevention.com  
livingworks.net  
suicideprevention.ca
References


15. Internal Ministry of Transportation study of historical collision data trends.