

**CANADIAN ASSOCIATION OF EMERGENCY PHYSICIANS
PRESENTATION TO THE STANDING COMMITTEE ON PUBLIC SAFETY AND NATIONAL SECURITY
ON BILL C-391, MAY 13, 2010**

Emergency Medicine and Injury Control:

Emergency Medicine is the medical specialty associated with the evaluation and treatment of undifferentiated acute illness and injury.

The national specialty society for Emergency Medicine is the Canadian Association of Emergency Physicians which represents in excess of 1800 physicians nationwide with a clinical interest and/or certification in Emergency Medicine.

Emergency Medicine has evolved as a specialty since its recognition in 1982. While initially focused solely on the evaluation and treatment of patients presenting to the emergency department, there has been increasing emphasis on research, system design, prehospital care and disaster medicine and injury prevention.

Emergency physicians are a direct witness to the poor health outcomes associated with failed social policy.

Emergency departments are crowded with those who do not know how to access more appropriate levels of primary care; the socially disenfranchised, the poor, the homeless, the mentally ill and the indigent.

Emergency departments routinely face the consequences of society's inability to effectively deal with alcoholism and drug dependence and abuse.

In emergency departments across this land, physicians and nurses are observers to the tragedy of child abuse, domestic violence and elder abuse.

Injury continues to be a major issue for our association, be it secondary to motor vehicle collisions, ATV misuse, boating incidents and failure to wear protective gear during recreational pursuits.

Underlying this persistent concern is the realization that our collective ability to treat an injury has largely been maximized and therefore, prevention assumes greater importance.

Our membership continues to have concerns with respect to firearm related injuries and deaths. They insist that their professional association vigorously supports efforts to reduce the tragic human toll associated with firearm misuse. We have been leaders in the call for mandatory reporting of gunshot wounds in Canada and continue to vigorously support the provisions of the gun control bill as a sensible package of regulations to minimize the risk of gun related injury and death.

Injury as a Public Health Issue:

Injury is the leading cause of death among people between one and forty-four years of age and the fourth leading cause of death overall. Injuries cause greater than 13, 000 deaths in Canada per year. Injuries account for more potential years of life lost at age 65 than heart disease, stroke and cancer

combined.

Most deaths from injuries occur well before emergency personnel and trauma surgeons can intervene. Prevention thus takes precedence over treatment.

Mortality statistics do not tell the whole story. Injury accounts for more than 200,000 hospital admissions per year and greater than 2,000,000 hospital days per year in Canada. Injuries account for more than 9% of acute hospitalizations annually to Canadian hospitals. For every one injury related death there are 18 injury related admissions and 250 injury related visits to the emergency department.

This represents a large economic burden to the Canadian health care sector, to say nothing of the indirect costs to society associated with work place rehabilitation and loss of productivity. Again, prevention is more cost effective than acute treatment.

Particularly sobering is the accepted statistic in health care that greater than 90% of all injuries are both predictable and preventable.

Canada's emergency physicians and nurses, as well as trauma surgeons, have been active in promoting an awareness amongst legislators with respect to automobile and boating safety, appropriate choices in recreational vehicles, drinking and driving and helmet use. We believe strongly that these educational efforts, coupled with socially conscious legislation, leads to positive societal change, injuries prevented and lives saved.

We urge you to consider the provisions of the Firearms Act, not as elements of a crime control bill but rather as key elements of a socially responsible, public health and safety bill.

There has been a reduction in firearm related mortality in Canada since the introduction of the Firearms Act in 1995 and we see no compelling reason, from a public health perspective, to dramatically and irresponsibly alter such effective legislation.

Gun ownership in Canada:

As of more than 1.8 million Canadians held firearm licenses. There are almost 7 million registered firearms in Canada, 90% of them are non-restricted firearms - rifles and shotguns. (RCMP 2008 Commissioner Report)

Rural areas have higher rates of gun ownership, with the highest rates of ownership in the Yukon and Northwest Territories (32% of adults own 1 or more firearms) and lowest in Ontario (9%).

The majority of owners (74%) use their firearms for hunting, target or sport shooting (30%) and collecting (17%). Only 4% own firearms for property or personal protection. (Canadian Firearms Centre. 1998)

Legally obtained long guns are therefore prevalent in Canadian society, and particularly in rural areas. It is from these types of firearms (rifles and shotguns) and in environments with higher rates of gun ownership (northern or rural) that much of the morbidity and mortality of firearm related injury is found.

Between 2001 and 2005, the Canadian average firearm death rate was 2.5 per 100,000. For that same period of time, Canada's Northern provinces had rates dramatically higher than the average – Nunavut

19.76; Northwest Territories 8.6; Yukon 7.84. So were the western or provinces with larger rural population - New Brunswick 4.08; Saskatchewan 3.76; Alberta 3.52; Nova Scotia 3.34; Manitoba 3; Quebec 2.86. The Canadian example is consistent with international studies that have shown that when other factors are held constant, gun death rates rise in proportion to the rate of gun ownership. (Miller, T. and Cohen, M. 1997; Gabor, T., 1994.)

In the province of Ontario, in 2004-2005, the rate per 100,000 of emergency visits resulting from firearm injury in Northern communities (8.7 per 100,000) was considerably higher than the provincial average (5.3 per 100,000). In the 15 to 19 years old population, the rate of emergency visits resulting from firearm injury in Northern communities was 34.0 per 100,000, twice the provincial average of 16.2 per 100,000. (Smartrisk. Compass: Firearm injuries. 2006.)

Firearm Related Injury in Canada:

Firearms are an important cause of injury and death.

In 2005, 818 Canadians were killed by the use of firearms and despite a general media focus on crime, 72% of these firearm related deaths were caused by suicide.

Firearm-related injury significantly impacts our health care system. In the 2001/2002 fiscal year there were 606 admissions to Canadian hospitals as a result of gunshot wounds.

Although national data for emergency department visits does not exist, in 2004/05 Ontario data revealed 624 emergency department visits and 199 hospital admissions.

Previous studies have highlighted the health care economic burden of firearm related injury. In 1991, the total cost (direct and indirect costs) associated with firearm-related injuries was estimated to be \$6.6 billion. One study estimated that since the implementation of the Firearms Act the financial savings associated to the reduction of firearm death and injuries are worth nearly \$1.4 billion annually. (Small arms Survey, 2006)

Despite the impressive reductions in mortality associated with the provisions of the Firearms Act, as will be discussed later, there remains much to be done to reduce this tragic societal toll and unacceptable financial waste. This is not the time, in our view, to consider reduced efforts at better gun control.

Firearm injuries and deaths:

Suicides:

Suicide is the second most common cause of death in Canada for those aged 10-34 years and the ninth leading cause of death overall.

In 2005, firearm deaths accounted for 15% of all suicides and as previously mentioned 72% of all firearm-related deaths are associated with suicide.

It is important to remember that the majority of suicides are not premeditated but are, rather, impulsive in nature. Access to firearms facilitates the completion of suicide attempts. Previous studies have shown that there is a fivefold increase in the risk of suicide in homes where guns were kept. Miller and

co-workers have shown that over a 22 year study period, for every 10% decline in gun ownership, firearm suicide rates dropped by 4.2% and overall suicide rates decreased by 2.5%.

Suicide attempts using a firearm are particularly lethal (96% completion), compared with overdose attempts, in which only 6.5% are lethal.

Suicide rates are higher in Aboriginal rural communities, where the use of firearms is overrepresented.

Firearm-related suicides have decreased by 46% since the introduction of stricter gun laws in 1991 and by 35% since the introduction of the Firearms Act in 1995. In 1991, the rate per 100,000 of firearm-related suicide in Canada was 3.4, in 1995 it had decreased to 3.1, in 2005 the rate plummeted at 1.77. This decline was confirmed in a 4 study review that examined changes in Canadian suicide rates following the introduction of stronger gun laws in 1991. Another study of Canada's gun control law stated that there has been no evidence that other methods were substituted in suicide attempts. (Gagné, 2008)

Canada's gun control requires that gun owners are screened for risk factors of suicide when they apply and renew their licenses. The registration requirement included in the law enforces the licensing provisions, safe storage of firearms, and make it possible for all firearms to be removed when there are risks of suicide.

From the perspective of the prevention of firearm-related suicides, current legislation appears to be highly effective.

Homicides:

Homicide is among the top 10 causes of death in Canada for those aged 1-34 years.

Despite increases in gang violence and homicide, as a result of illegal guns, firearm homicides have decreased significantly since the 1991 introduction of stricter gun control: from 271 (a rate of 0.99 per 100 000 people) in 1991 to 2000 (0.59 per 100 000) in 2008. Specifically, homicide with rifles and shotguns went from 103 (a rate of 0.37 per 100 000) in 1991 to 34 (0.1 per 100,000), a decrease of 44% in the number and 52% in the rate.

Of firearm-related homicides in 2008 in Canada, 17% were by rifles or shotguns, 60.5% by handguns and 9.5% by prohibited firearms. (Statistics Canada. Homicide in Canada, 2008.)

A national study of illicit firearms demonstrated that long guns were more commonly used in rural crimes. (Criminal Intelligence Service Canada; 2008.) They were also used in 72% of firearm-related spousal homicides.

Gun ownership is a recognized risk factor for homicide in the home. There is a threefold increased risk of homicide in homes where guns are kept, usually by an acquaintance or family member.

Controls over legal guns are essential to preventing diversion and choking off the illegal supply. The gun registry has aided police investigations and over 7,000 affidavits were prepared in 2009 alone, based on information contained in the registry.

Intimate partner homicides:

Keeping a gun in the home is a recognized risk factor for spousal homicide.

Firearms are not only used for homicide in intimate partner violence but also used in intimidation tactics such as threatening to shoot the spouse, a pet or someone they loved, holding or loading a gun during an argument or firing the gun during an argument.

Significant variations exist between intimate partner firearm homicides and other firearm homicides, both in the types of firearms used and the risk factors.

The spousal homicide rate against women is 5 times higher than that against men.

Rifles and shotguns were used in 62%, handguns in 28% and sawed-off rifles or shotguns in 10% spousal homicides.

Firearm use in spousal homicide has decreased by 36% since the passage of the Firearms Act, from 25 victims in 1995 to 9 in 2008.

In Canada, gun license applications are screened for risk factors of violence and require mandatory notification of current and former spouses. Additionally spouses can call a hotline if they have safety concerns. Screening and licensing firearm owners reduces the risks that dangerous people will have access to weapons. Registration of all firearms is essential to enforcing licensing. It also assists police in removing all guns from dangerous individuals and enforcing prohibition orders.

Unintentional injuries and deaths related to firearms:

Unintentional injuries and deaths related to firearms form a small but important percentage of all firearm deaths: 2% in 2005.

Many of these victims were children and youth; others include hunters and sport shooters.

Non-fatal injury resulting from the use of a firearm is most commonly unintentional.

In Ontario, 63% of all 2004/05 ED visits because of firearm related injury were classified as unintentional; overall, 395 ED visits and 78 hospital admissions were a result of unintentional firearm injury.

In a study of child and adolescent unintentional firearm related injuries and deaths, the firearm used was owned by the victim's household member, relative, friend or friend's parent in 72% of cases.

Several interventions have been proposed to reduce unintentional firearm-related injuries and deaths. Compliance with safe storage regulations has been shown to protect children and adolescents from unintentional injury and suicides. The Firearms Act requires these measures. Registration of all firearms allows police to enforce the safe storage requirements.

Injury Prevention:

The public health approach to disease and injury prevention has a number of paradigms.

One such paradigm includes the so-called "three E's" of injury prevention, which include Education,

Engineering and Enforcement.

The American Academy of Pediatrics recommends that education focus on decreasing the availability and lethality of weapons and ammunition, identification of high risk adolescents and homes, school curricula to prevent violence and reduction of media glamorization of firearm violence.

The engineering approach calls for modification of a hazardous or dangerous product so as to require no effort or compliance on the part of the user to increase safety of the product. In the case of firearms these would include such things as safety locks, loading indicators and decreased lethality of ammunition.

The enforcement paradigm calls for legislation to decrease availability, the banning of assault rifles, licensing for the purchase of firearms and ammunition and gun registration.

Injury prevention experts believe that education, as a single promotion strategy, is too slow, is of unproven benefit and can be undermined by deep rooted social attitudes and behaviours.

To reduce the substantial human and economic toll associated with firearm-related suicides and homicides, the latter two strategies would seem to hold the most promise.

We believe that enforcement through legislation is of particular importance in mitigating the public health costs of firearm related injury and death.

What is the role of the registry?

As has already been highlighted, there is clear evidence that the legislative package incorporated within the body of the Firearms Act has led to a convincing reduction in the number of suicides and homicides in Canada since its introduction. Though it would be impossible to isolate the relative contributions of the various components of the bill to the identified mortality reduction, it is clear that the cumulative expression of this bill has been a safer Canada.

However, as front line emergency physicians, we can unequivocally attest to the value of the registry in our day to day lives.

We are often faced with the evaluation of patients who may have threatened or are considered at risk for suicide. We also often have to consider the risk of patients who present to the emergency department with major depressive illness. Those in the former group, in particular, are often accompanied to the emergency department by police. The presence of a gun in a home is an acknowledged risk for suicide completion and we commonly ask the police to remove guns from the homes of those identified at risk of suicide.

Furthermore, we also consider police access to the registry when dealing with victims of intimate partner violence. The future safety of the person at risk is clearly of major concern to us and the removal of all firearms from a home in which intimate partner violence is either implied, threatened or carried out is an important step in guaranteeing patient safety.

We are also familiar that police services are supportive of the registry and find it useful when responding to calls with respect to domestic disputes and threatened intimate partner violence or to calls in which suicide has been threatened. Beyond knowing an individual has a license, police have

indicated that knowing what firearms they own helps them take appropriate action.

We also acknowledge and support those provisions of the licensing process that identify and enable spouses and former partners to report their concern for their individual safety with respect to firearms held by their partners.

We also believe that registration of firearms is essential to reinforcing gun owner accountability for their firearms. This increases the chances they will store their firearms safely and so reduces the chances of theft and misuse. As well, we believe, that having their name associated with their firearms will reduce the chances that firearm owners will sell, give or loan their firearms to an unlicensed owner, thereby reducing the risk that legal guns will fall into the hands of dangerous or unstable individuals. The approach to regulating firearms in Canada is based on well established principles of injury prevention intended to reduce the risk of misuse. No law is perfect but we should be making it more difficult, not easier for dangerous people to have access to firearms.

The maintenance of the registration process and provisions is important, in our view, to further reduction in morbidity and mortality from inappropriate firearms use.

The Recommendations of the Canadian Association of Emergency Physicians with respect to Private Member's Bill C-391 that proposes to repeal the requirement that long guns be registered in the name of their legal owners.

The Canadian Association of Emergency Physicians recently reviewed its position on the reduction of firearm-related injury and death through effective gun control.

Our position statement was published in the January 2009 edition of the Canadian Journal of Emergency Medicine.

After reviewing the proposed changes to the Criminal Code, the Firearms Act and chapter 8 of the Statutes of Canada, 2003 contained in Private Member's Bill C-391, our Association recommends to the committee that Bill C-391 be dropped.

Our Association calls for the following measures to be implemented to reduce the tragic human and social toll associated with the inappropriate use of firearms.

1. Continued support for the original provisions of the existing Firearms Act and active opposition to any attempt to repeal licensing or registration of rifles and shotguns.
2. Advocacy for the implementation by the government of a nationwide surveillance system for firearm-related injury and mortality
3. Expansion of programs focused on the prevention of suicide, intimate partner violence and gang-related violence
4. Support for legislation mandating that health care facilities report gunshot wounds, but not knife injuries or other violent injuries
5. Continued support for research into firearm-related injury and death in order to guide further public policy development and future legislation