

Brief to Standing Committee on Public Safety and
National Security Regarding Proposed Legislation:
C:21 “An Act to amend certain Acts and to make
certain consequential amendments (firearms)”

Caillin Langmann, MD PhD FRCP ABEM
Assistant Professor
Division Emergency Medicine
Department of Medicine
McMaster University
Hamilton ON
10/17/22

Summary

- Handgun controls and bans have been tried in Canada with no associated reduction in homicide
- Very strict handgun controls and bans have been tried in Australia and United Kingdom with no associated reduction in homicide
- The current evidence suggests a ban of handguns in Canada will not result in a reduction in homicide rates
- A system for emergency confiscation of firearms currently exists in Canada
- Current evidence shows no reduction in firearm homicide rates or overall suicide rates associated with the Canadian system
- Emergency protection orders have not had associated reductions in firearm homicide or suicide rates in California
- A system for detention and evaluation of patients with psychiatric risk of a concern for future self harm or harm of others currently exists in Canada
- Collection of psychiatric data from physicians places patients at risk of harm with no potential benefit

1. Introduction

Bill C-21, “An Act to amend certain Acts and to make certain consequential amendments (firearms)”, proposes several changes to firearms legislation and regulations in Canada. The main being examined in this brief in the context of previous Canadian studies, and studies from other countries, on the effectiveness of legislation will be:

- An essential ban of new acquisitions of handguns by licensed firearms holders
- Establish a regime that will allow any person to apply for an emergency prohibition order

This brief will examine the current Canadian evidence available and evidence from other jurisdictions to determine the potential effectiveness of the above proposed legislation. As well, current systems of managing emergent patients with associated risks of suicide or violence will be explored and further directions evaluated in that context. References are available on request from the author.

The author of this brief is currently a Royal College and American Board of Emergency Medicine certified Emergency Physician practising in a large center in Canada. The author has an academic appointment at McMaster University in the Department of Medicine. They have published multiple peer reviewed articles on Canadian firearms legislation and its association with homicide, spousal homicide, mass homicide, and suicide (1-4). Have served as an expert witness in the Superior Courts of Ontario and appeared before the Parliament and Senate of Canada on these matters.

2. Handgun Controls and Bans

2.1 Background

Arguments for placing strict controls on handguns appear to be related to prevalence reduction in the hope that if handguns are difficult to obtain there will be an associated reduction in homicide. However, this argument may mistakenly view all handguns as the same item, whereas legally owned handguns and handguns on the black market may have much different risk of associated harm. In fact, in Ontario, Canada, where handguns are very difficult to legally acquire, it appears that 85% of handguns involved in criminal activity were not obtained legally in Canada but rather from outside the country and most often from the United States (5). Hence controlling domestically legally owned handguns may in fact result in no additional or measurable benefit. In addition, licensed firearms owners in Canada are half as likely to commit homicide with a firearm than an average Canadian (Personal Communication).

2.2 Effectiveness of Handgun Controls and Bans in Canada

Since 2003, Canada has kept accurate counts of the number of registered firearms, and handguns are all in the restricted and prohibited category. As well since 2003, the number of restricted and prohibited firearms has doubled from 572,325 to 1,165,114 firearms while the rate of homicide by handgun has remained relatively constant (Figure 1). Statistical regression analysis revealed no associated increase in handgun homicide with the increase in the number of registered restricted and prohibited firearms (Table 1). Nor is there an increase in overall firearms homicide (Table 2). This is important because with such an increase if prevalence of handguns was associated with an increase in homicide one would expect homicide rates to also increase. This suggests that legally owned firearms are not linked with homicide rates.

While no complete ban of handguns has ever been implemented in Canada, regulations to significantly restrict the acquisition, use and movement of handguns as well as bans of certain types of small easily concealable handguns have occurred. In 1991 and 1995 regulations to require references, background checks, spousal approval, as well as licensing to possess (2001) firearms were all implemented (6). As well over 550,000 firearms were also prohibited including many handguns (7). Interestingly, none of these methods have been demonstrated to have been effective in reducing homicide rates or mass homicide rates associated with restricted and prohibited firearms in Canada when high quality studies are examined (1, 2, 4, 8-11). Such strict rules and bans of types of handguns resulting in no associated changes in homicide suggests that further restrictions or decreases in the prevalence of handguns may not have a beneficial effect on homicide rates since it is targeting people who are already highly scrutinized and controlled.

2.3 Effectiveness of Handgun Controls and Bans in Other Jurisdictions

Other countries have placed very stringent controls on handguns. In 1997, handguns were essentially banned and confiscated in England and Wales for all but Olympic Athletes, and while no quality peer reviewed studies exist, the rate of homicide has not dramatically changed since the 1970s (12). As well handguns account for about 50% of all homicides by firearm in the United Kingdom.

Australia, one of the most studied countries, enacted legislation in 1996 and further agreements in 2002 to ban semi automatic rifles and significantly control handguns to only people who participate in competitions. Over 650,000 firearms were bought by the Australian government from private owners. All studies that have examined this legislation have found no statistically significant reduction in homicide rates by firearms (13-16). This is significant in that strict controls of firearms including extremely controlled acquisition of handguns to only a tiny number of qualifying people has had no beneficially associated effects.

In summary evidence from Canada as well as Australia suggest that very strict controls of handguns will not result in a reduction of deaths associated with handguns. The availability of handguns in underground markets as well as the low likelihood of legal firearms owners to use their firearms in criminal activity are likely reasons for these findings.

3. Emergency Protection Orders

3.1 The Current System

Bill C-21, “An Act to amend certain Acts and to make certain consequential amendments (firearms)”, seeks to add an emergency prohibition order, or “red flag law”, to the current firearms regulations system. It is thought that when an individual poses a serious danger to the public or self, prohibition and confiscation of firearms may result in the prevention of harm or death (17).

Currently if any person has a concern about a firearms owner, there are two options: to call the local police and/or to call the Chief Firearms Office (CFO) at a toll-free number or local number. This will notify the CFO of a concern, initiate an investigation and emergency confiscation of firearms can occur. As a physician, the author of this brief has implemented this process a number of times, have found the response to be immediate, has resulted in contact by the CFO, and has resulted in either or both the confiscation of firearms and license. The process also involves a judicial review at a later time. It is very unclear what if anything the new proposed procedure would add, and in fact it may appear to be more bureaucratic than easily navigable and functional. As well the current system does allow for confidential reports such as those made by spouses that may fear retaliation if a report is made and this is not certain under the new proposed system (18).

3.2 Effectiveness of Prohibition Orders

Canada initiated the current prohibition process during the changes to the Firearms Act that occurred in the 1990s. Well constructed studies show that there has not been an associated reduction in homicides or spousal homicides by firearms after this time (1, 2, 4). Reductions in suicide by firearms may have occurred though it is difficult to determine whether this is due to the prohibition orders or some other reason such as background checks or even a changing preference in methods of suicide. Moreover, there is a complete substitution effect demonstrated where people considering suicide switch to another method usually hanging, negating any overall reduction in suicide (2, 3). Unfortunately, intentional hanging is as lethal as the use of a firearm resulting in lethality rates of 82% vs 83% respectively (19, 20).

A recent study of protection orders in San Diego, California, from 2016 to 2019, resulted in a finding of no associated change in firearm associated violence or self harm (17). This study was interesting because it was the most complete U.S. study to date, examined both violence and suicide, and the 28 counties examined had issued a large number of prohibition orders.

Three questions on the current Canadian application for a firearms license ask the applicant if they have a history of suicidal threats or attempts, depression and addiction, violence, relationship breakdowns, divorce and economic matters. These questions and supporting evidence was examined by the Office of the Privacy Commissioner of Canada and the recommendation was that the evidence supporting these questions was not sufficient, and that these questions should be removed based on privacy concerns (18).

3.3 Future Directions

Canadian specific changes to the current protection order system have been proposed such as mandatory reporting by physicians of patients with suicidal intentions to the CFO. At this current time, Ontario allows physicians to order an "Application by Physician for Psychiatric Assessment" on patients they deem present an immediate risk of future self harm or harm to others. This detains an individual under the application in a psychiatric institute for assessment by a psychiatrist. At this time if a patient is found to be at risk, steps may be taken to reduce risk including removing dangerous methods of harm from the patient. All provinces have similar procedures. The application has profound implications as it immediately impacts a patient's human rights and Charter rights such as freedom of movement (mobility). It also has the possibility of causing an antagonistic relationship between physician and patient and can expose the patient to a breach of confidentiality (21). Hence, such orders should not be used lightly and require the judgement of a trained and experienced physician.

The above process is well known to practicing physicians, implemented when necessary, and functions effectively. The author of this brief, as a practicing Emergency physician in a large center, has initiated this process many times. The question arises as to what more a physician can do as well as what other procedural processes could be improved?

There may exist an argument for allowing the CFO to investigate whether a firearms applicant or current licensee has ever received an application for psychiatric assessment. This would require significant legislative cooperation between the Federal and Provincial governments. However, breaches of patient confidentiality do occur and this data is of extreme sensitive nature (18, 22). For instance, a large amount of patient data was released to the U.S. Department of Homeland Security. The Office of the Privacy Commissioner of Canada recommended that the evidence supporting the current collected data from licensees was insufficient, and that these questions should be removed based on privacy concerns hence further increasing the collection of patient data could cause risk without benefit (18).

If a patient is not at risk of harming themselves or others but may have expressed thoughts of suicide that are tangential and not concrete, this patient is not detained under an application and other methods of harm reduction and treatment are initiated. Should these patients be reported by their physicians to the CFO? Should there be mandatory reporting? Should the CFO collect a massive database of patient information including patients who don't own or ever intend to own firearms?

There exists a significant ethical dilemma when it comes to breaching patient physician confidentiality and physicians have a duty to protect information as it encourages a patient to provide their doctor with relevant information that aids in correct diagnosis and treatment and reduces potential patient harm (23). The College of Physicians and Surgeons of Ontario (CPSO) requires that patient information remain within the patient's immediate circle of care and should not be disclosed to the police or any body outside that care except in circumstances of insurance purposes and mandatory reporting (24). It is widely and generally accepted that patients who trust their physicians will have better care and health outcomes (25).

Mandatory reporting of firearms injuries exists in 9 of 10 provinces in Ontario, and the duty to report is at the level of the institution (26). In addition, Quebec's Anastasia's Law allows for discretionary reporting by a physician if there is a concern that behaviour may result in harm using a firearm, however this is not mandatory (27). The question of whether reporting should be mandatory require a balance between protecting patient confidentiality and thus preventing poor patient outcomes due to a reluctance by the patient to disclose or seek help and the potential benefit to public safety. A recent study demonstrates that in Nova Scotia there is no associated benefit with mandatory reporting of firearms injuries and a reduction in firearms injuries (26).

It would appear based on the evidence that patients who are planning suicide and are restricted from use of firearms will switch to another method and that reporting of non-concrete thoughts of suicide to the CFO would result in harm to the patient physician relationship without benefit. Therefore, there exists no inherent benefit from this type of reporting. It could be argued that due to the high lethality rate of hanging, a physician who has this patient should also call all hardware stores and inform the management that the patient should not be permitted to purchase rope. Clearly this would violate

patient confidentiality and expose the patient to significant harm and as such is not remotely feasible.

Currently well understood methods exist for physicians to protect patients who are at immediate risk of self harm or harm to others. Any further methods to expose patients to risks of confidentiality breaches would require significant proof of benefit.

Figure 1.

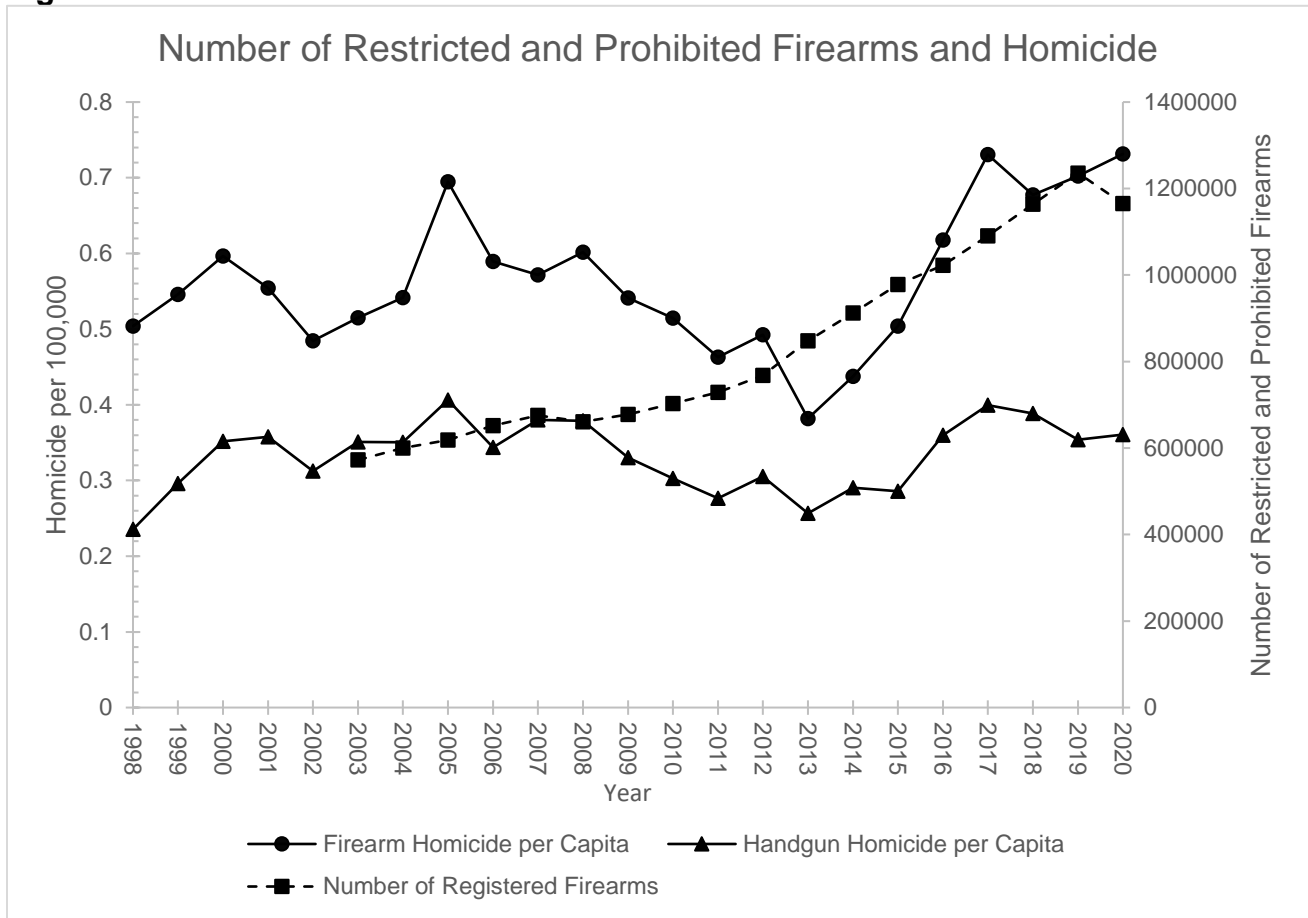


Table 1. Regression Analysis using negative binomial regression and robust errors clustered around year.

handgunhomicide	IRR	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
year	1.033402	.0797333	0.43	0.670	.8883703	1.202112
numberofregisteredfirearms	1	1.01e-06	0.32	0.749	.9999984	1.000002
medianage	.7571926	.1777803	-1.18	0.236	.4779184	1.199662
unemployment	.9629086	.0400151	-0.91	0.363	.8875895	1.044619
immigrantrate	1.001746	.0413818	0.04	0.966	.9238358	1.086227
_cons	4.31e-30	6.26e-28	-0.47	0.641	1.1e-153	1.66e+94
lnpopulation	1	(offset)				

Table 2. Regression Analysis using negative binomial regression and robust errors clustered around year.

firearmshomicide	Robust		z	P> z	[95% Conf. Interval]	
	IRR	Std. Err.				
year	1.088434	.1083614	0.85	0.395	.8954865	1.322956
numberofregisteredfirearms	1	1.27e-06	0.10	0.921	.9999976	1.000003
medianage	.6247967	.1985228	-1.48	0.139	.33518	1.164661
unemployment	.9705029	.0439764	-0.66	0.509	.8880274	1.060638
immigrantrate	1.023158	.0616034	0.38	0.704	.9092701	1.151312
_cons	6.88e-72	1.29e-69	-0.88	0.381	2.9e-231	1.62e+88
lnpopulation	1	(offset)				

References

1. Langmann C. Canadian Firearms Legislation and Effects on Homicide 1974 to 2008. *Journal of Interpersonal Violence*. 2012;27(12):2303-21.
2. Langmann C. Effect of firearms legislation on suicide and homicide in Canada from 1981 to 2016. *PLoS One*. 2020;15(6):e0234457.
3. Langmann C. Suicide, firearms, and legislation: A review of the Canadian evidence. *Prev Med*. 2021;152(Pt 1):106471.
4. Langmann C. Mass Homicide by Firearm in Canada: Effects of Legislation. medRxiv. 2022:2022.03.24.22272877.
5. Scherer S, Paperny AM. In fighting gun crime, Canada has an American problem: Reuters; 2022 [updated July 27, 2022. Available from: <https://www.reuters.com/world/americas/fighting-gun-crime-canada-has-an-american-problem-2022-07-27/#:~:text=Exclusive%20data%20obtained%20by%20Reuters%20for%20Ontario%2C%20Canada%27s,found%20to%20have%20come%20from%20the%20United%20States.>
6. History of Firearms Control in Canada. Royal Canadian Mounted Police 2019.
7. Information Commissioner of Canada. ATI File: A-2003-0002. Government of Canada,; 2003.
8. Mauser G, Holmes R. An Evaluation of the 1977 Canadian Firearms Legislation. *Evaluation Review*. 1992;16(6):603-17.
9. McPhedran S, Mauser GA. Lethal Firearm-Related Violence Against Canadian Women: Did Tightening Gun Laws Have an Impact on Women's Health and Safety. *Violence and Victims*. 2013;28(5):875-83.
10. Bennett N, Karkada M, Erdogan M, Green RS, Heal NSRP. The effect of legislation on firearm-related deaths in Canada: a systematic review. *CMAJ Open*. 2022;10(2):E500-E7.
11. Blais E, Gagne M-P, Linteau I. The effect of laws in relation to firearm control on homicides in Canada, 1974-2004. *Canadian Journal of Criminology and Criminal Justice*. 2011;53(1):27-61.
12. Stripe N. Homicide in England and Wales: year ending March 2020 United Kingdom: Office for National Statistics; 2021 [Available from: <https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/articles/homicideinenglandandwales/yearendingmarch2020>].
13. Chapman S, Alpers P, Jones M. Association Between Gun Law Reforms and Intentional Firearm Deaths in Australia, 1979-2013. *JAMA*. 2016;316(3):291-9.
14. Gilmour S, Wattanakamolkul K, Sugai M. The Effect of the Australian National Firearms. *American Journal of Public Health*. 2018;108(11):1511-6.
15. Lee W, Saurdi S. The Australian Firearms Buyback and its Effect on Gun Deaths. *Contemporary Economic Policy*. 2008;28(1):65-79.
16. McPhedran S, Baker J. Australian homicide: no significant impact of gun laws. *Med Sci Law*. 2008;48(3):270.
17. Pear VA, Wintemute GJ, Jewell NP, Ahern J. Firearm Violence Following the Implementation of California's Gun Violence Restraining Order Law. *JAMA Netw Open*. 2022;5(4):e224216.
18. Office of the Privacy Commissioner of Canada. Review of the Personal Information Handling Practices of the Canadian Firearms Program. In: Office of the Privacy Commissioner of Canada, editor. Ottawa: Government of Canada; 2001. p. 1-81.

19. Beautrais A, Joyce P, Mulder R. Access to Firearms and the Risk of Suicide: A Case Control Study. *Australian and New Zealand Journal of Psychiatry*. 1996;30(6):741-8.
20. Gunnell D, Bennewith O, Hawton K, Simkin S, Kapur N. The epidemiology and prevention of suicide by hanging: a systematic review. *Int J Epidemiol*. 2005;34(2):433-42.
21. Bridge S. Canadians with mental illnesses denied U.S. entry: Canadian Broadcasting Corporation; 2011 [cited 2022 October 16, 2022]. Available from: <https://www.cbc.ca/news/canada/canadians-with-mental-illnesses-denied-u-s-entry-1.1034903>.
22. Information and Privacy Commissioner of Ontario. Annual Reporting of Privacy Breach Statistics to the Commissioner. In: Information and Privacy Commissioner of Ontario, editor. Ontario: Government of Ontario; 2021. p. 1 to 4.
23. Canadian Medical Protective Association. Privacy and confidentiality: Canadian Medical Protective Association; 2021 [Available from: <https://www.cmpa-acpm.ca/en/education-events/good-practices/professionalism-ethics-and-wellness/privacy-and-confidentiality>].
24. College of Physicians and Surgeons Ontario. ADVICE TO THE PROFESSION: PROTECTING PERSONAL HEALTH INFORMATION Ontario: College of Physicians and Surgeons Ontario,; 2022 [October 17, 2022]. Available from: <https://www.cpso.on.ca/Physicians/Policies-Guidance/Policies/Protecting-Personal-Health-Information/Advice-to-the-Profession-Protecting-Personal-Health>.
25. Birkhauer J, Gaab J, Kossowsky J, Hasler S, Krummenacher P, Werner C, et al. Trust in the health care professional and health outcome: A meta-analysis. *PLoS One*. 2017;12(2):e0170988.
26. Bennett N, Erdogan M, Karkada M, Kureshi N, Green RS, Heal NSRP. Mandatory gunshot wound reporting in Nova Scotia: a pre-post-evaluation of firearm-related injury rates. *CJEM*. 2022;24(4):439-43.
27. Brassard M. The Anastasia Act: Implications for School and Health Networks. Lavery, De Billy Barristers and Solicitors; 2008 2008.