The Need for a Canadian Database of Police Use-of-Force Incidents

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Abstract: Concerns surrounding the use of force by police officers appear to be growing, fuelled by perceptions that the police use force too frequently, research showing that force is applied disproportionately to members of certain groups, and the view held by some that the mechanisms for holding police responsible for unjustified force are inadequate. In this paper, we advocate for the creation of a national use-of-force

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database in Canada to gain a better understanding of these issues, adding our voice to those who have already been actively calling for this. We describe some of the potential benefits that would be associated with such a database, including the fact that it would enhance police transparency and accountability, while also increasing our understanding of when and why force is used and what strategies may be useful for reducing inappropriate applications of force. We also highlight some of the challenges we think would be encountered, including mandating nationwide participation, overcoming resistance from the police community, establishing sensible case inclusion criteria, and standardizing data collection. While these are significant challenges, we believe not only that they are possible to overcome but that doing so will provide real value to Canadian society.

Keywords: police, police database, use of force, police shootings, police transparency, police accountability

Résumé : Il semble y avoir de plus en plus de préoccupations liées au recours à la force par les agents de police, notamment en raison de perceptions que les services de police ont recours à la force trop fréquemment, avec des études montrant que cette force est appliquée de façon disproportionnée aux membres de certains groupes, et du point de vue de certains à l'effet que les mécanismes en place pour tenir les agents de police responsables de l'utilisation d'une force injustifiée sont inadéquats. Dans le présent article, nous préconisons la création d'une base de données nationales sur le recours à la force au Canada pour mieux comprendre ces préoccupations, en ajoutant notre voix à ceux qui réclament déjà un tel outil. Nous décrivons certains des avantages possibles associés à une telle base de données, y compris une amélioration de la transparence et de la reddition de comptes des services de police, ainsi qu'une meilleure compréhension des circonstances et des raisons du recours à la force et des stratégies qui pourraient être utilisées pour diminuer la fréquence d'un recours inapproprié à la force. Nous mettons aussi en relief certains des défis liés à la création d'une base de données, y compris la nécessité de rendre la participation obligatoire à l'échelle nationale, de vaincre la résistance de la communauté policière, d'établir des critères sensés d'inclusion de cas et de normaliser la collecte de données. Ce sont des défis considérables, mais nous croyons qu'il est non seulement possible de les relever, mais que ce faisant, le projet sera d'une valeur réelle pour la société canadienne.

Mots-clés : police, base de données policière, recours à la force, fusillades par des policiers, transparence de la police, reddition de comptes par la police

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"Emails show police chiefs upset over perception of force after Chantel Moore shooting" (Magee 2021); "Lawyer calls on [Special Investigations Unit] to reopen investigation into police shooting death of Jamal Francique" (Draaisma 2021); "No charges in death of Ejaz Choudry, 62-year-old shot and killed by police while in crisis" (Nasser 2021); "Visible minorities disproportionately affected by Windsor police use of force in 2020: Report" (Maru 2021); "Hamilton police used force against a 'disproportionate' number of Black residents last year, critics say" (Van Dongen 2021). These are just some of the most recent headlines that have appeared in Canadian mainstream media that highlight controversies currently surrounding the use of force by police officers. While such controversies are far from new, discussions of the use of force within the public domain have increased in Canada in recent years, and these types of headlines are now becoming more commonplace.

To some, this reflects a growing crisis surrounding police use of force (e.g., Iacobucci 2014; Dubé 2016; Wortley, Laniyonu, and Laming 2020). Numerous factors seem to be contributing to this sense of crisis. First is the view held by some that Canadian police officers rely on force too frequently (Dubé 2016). While statistically speaking the use of force by police in Canada appears rare, with most estimates putting the rate at about 0.1% of all police-citizen

interactions (Hall and Votova 2013; Baldwin et al. 2016; Walker and Bennell 2021), there are still reasons to be concerned. One reason is the fact that these numbers underestimate the true rate of force used by police. This is in part because of the way Canadian police services define force for the purpose of data collection. Many services collect data only on the use of physical force that causes or is likely to cause injury, the use of intermediate weapons (e.g., batons, pepper spray, conducted energy weapons [CEWs]), and lethal force (Walker and Bennell 2021). This omits a wide range of use-of-force options (e.g., so called "soft" techniques, such as joint locks) that the public would likely consider force. Another equally concerning reason is the fact that low *rates* of force translate into many *applications* of force when one considers how frequently the police interact with citizens. For example, in Baldwin et al.'s (2016) study, which examined 5.4 million police-citizen interactions over a two-year period in one police service, the estimated use-of-force rate of 0.1% would equate to 5,400 situations where force (excluding low levels of physical force that did not cause injury) was used.

A second factor contributing to the crisis relates to public perceptions of force; that is, the public appears to think force is used by the police more often than it is (Bennell et al. 2021). Given this, it makes sense that the public is extremely concerned about this issue. For example, in one recent study that surveyed university students in Canada, participants estimated that firearms are used by the police in roughly 12% of all police-citizen encounters (Khanizadeh et al., unpublished data), whereas the rate of firearm use by Canadian police officers is probably closer to 0.01% (Hall and Votova 2013). In another recent study from the United States that was conducted by McCaffree and Saide (2021), very liberal participants estimated that more than 60% of those killed by the police in 2019 were Black people, whereas available data suggest the proportion is closer to 25%. Notably, this is still roughly double the proportion of Black Americans in the 2019 U.S. census (United States Department of Commerce 2021).

A third factor that must be considered is the biased application of force. Even though the actual rate of force used by the police is likely much lower than the public thinks it is, valid concerns still exist in terms of who in the community is exposed to that force. For example, while there are some exceptions (e.g., Jetelina et al. 2017; Worrall, Bishopp, and Terrill 2020), most research that has examined this issue in the United States demonstrates that force is experienced disproportionately by members of racialized communities, particularly Black individuals (Edwards, Lee, and Esposito 2019; Fridell and Lim 2016). This is also true in Canada for Black and Indigenous people (Wortley 2006; Wortley et al. 2020). That being said, Canadian research on this topic is far less common than in the Unites States, likely because of the lack of systematic efforts on the part of Canadian police services to collect race-based data and the difficulties in accessing any data that do exist (Owusu-Bempah 2011; Samuels-Wortley 2021). Police use of force in Canada also appears to be more common among people experiencing crises, including mental health crises (Marcoux and Nicholson n.d.; Brink et al. 2011).

Finally, some individuals lack confidence in the formal response mechanisms available to address instances of force that are seen as potentially biased or excessive, which further contributes to a sense of crisis. While there are processes in place to investigate and prosecute questionable applications of force by police officers in Canada, including civilian oversight bodies and criminal courts (Watson and Brantford 2018; Stelkia 2020), misconduct and/or

criminal behaviour is rarely found. For example, in Vancouver, of the approximately 270,000 calls for service that occur annually, use-of-force misconduct is found, on average, five times a year (Bennell et al. 2021). While some look at this result in a positive light, others express concerns about the legitimacy of the civilian oversight process and about the wide latitude given to police officers in Canada to use force (Kwon and Wortley 2020; Puddister and McNabb 2021).

Regardless of what is contributing to the ongoing crisis around police use of force, it is to everyone's benefit – both the public and the police – to address these issues. While clearly there is no single solution that will resolve all concerns, we believe that one important step is to create a national database to track the use of force by Canadian police officers. We begin this paper by providing context for this discussion given that calls for a national use-of-force database in Canada are not new. We then briefly lay out what such a database might look like. Following this, we describe some of the potential benefits that might be associated with a national database, for the public, the police, and researchers who study policing issues. We conclude the paper by speaking to some of the challenges we think would be encountered if this task were undertaken and propose potential ways to navigate some of these challenges.

Context

Conversations about a national use-of-force database (focusing on lethal force) have been ongoing in the United States for years, but so far, little progress has been made (White 2016). Historical data sources, such as the Federal Bureau of Investigation's (FBI) Supplemental Homicide Reports or the Center for Disease Control and Prevention's National Violent Death Reporting System, are known to be problematic (White 2016), and more recent attempts to establish a nationwide database are faring no better (Jackman 2021). Not only are there significant data missing from these databases (Swaine and Laughland 2015; Jackman 2021), but they rely on aggregate data, which limits their utility (e.g., most sources do not allow for the examination of contextual factors surrounding the use of lethal force; Klinger et al. 2016; Shane 2018). A full discussion of reasons for the lack of progress in the United States is beyond the scope of this paper. We will touch upon this topic briefly below, but interested readers can consult Alpert (2016), Klinger et al. (2016), and White (2016).

To fill the void left by these failed attempts to create a meaningful database, several media organizations in the United States (and other groups; e.g., https://fatalencounters.org/) have taken it upon themselves to complete the task (Shjarback 2019). Perhaps the most well-known database examining U.S. incidents of police shootings has been developed by *The Washington Post* (Nix et al. 2017).³ Starting in 2015, journalists from the *Post* began collecting data from publicly available sources about cases involving civilians shot by the police, and they have maintained the database ever since. The *Post's* database now contains information on thousands of these incidents, including demographic information about the civilians who were killed, circumstances surrounding each incident, the agency involved in the shooting, and the location of the shooting (Nix et al. 2017).

A very similar situation exists in Canada. Here, calls for a national use-of-force database are also regularly made (e.g., Laming 2016, 2017; Simpson 2020; Wortley et al. 2020). Furthermore, just like in the United States, notwithstanding the efforts of some police agencies to collect and release better use-of-force data (e.g., Hamilton Police Service 2021; Royal

Canadian Mounted Police [RCMP] 2020), little progress has been made. Canadian media organizations have also stepped in to fill this void. Most notably, the Canadian Broadcasting Corporation (CBC) has developed a nationwide database that has captured basic information about deadly force encounters involving the police from 2000 to June 2020 (Singh 2020). The database currently consists of 555 incidents.

While media databases potentially provide greater accountability and an understanding of how often deadly force occurs and under what circumstances, they have also been criticized, as discussed more thoroughly below. One of the most common criticisms is that the coded cases lack sufficient contextual information, which prevents a full understanding of the incidents (e.g., whether the police were justified in using lethal force; Klinger and Slocum 2017). Another criticism relates to the nature of the cases included in the database. For example, some have argued that media databases underestimate the extent of lethal force used by police because they include only cases in which civilians are shot and killed while excluding cases where a police officer discharged their firearm but missed their target or non-fatally shot the individual (Laming 2017).

A Canadian use-of-force database

To address concerns with media databases, but also for a host of other reasons that will be discussed below, we believe that a nationwide use-of-force database should be developed in Canada, in which participation by all police services is mandatory. We already know this is feasible because examples exist of similar databases designed for other purposes. One of the best examples is the RCMP's Violent Crime Linkage Analysis System (ViCLAS). ViCLAS is a centralized database that was designed to assist with establishing linkages between crimes of a serious nature (i.e., to identify serial offenders; Bennell et al. 2012). Police officers from across the country submit information related to specific types of crimes so that it can be entered into ViCLAS and analysed. In some provinces, the completion of this task by investigating officers is mandatory.

The task of developing a use-of-force database in Canada would arguably be much easier than this; not only do police services already collect such data, but the number of variables that would likely need to be coded would be more manageable than the number of variables coded for ViCLAS. We agree with Laming (2017: para. 9) that, at the very least, the database should include:

demographic characteristics of the officer(s) and civilian(s) involved in each incident (including race/ethnicity); the location of each incident (i.e., neighbourhood, highway, cross-streets); any injuries suffered by the officer(s) and civilian(s); if the civilian was armed; the nature of the incident (e.g., vehicle pursuit, domestic call, robbery); years of experience and education level of officer(s); and whether other types of force were attempted (including de-escalation).

Other variables that might be important to collect include (1) features of the civilian that go beyond simple demographic characteristics (e.g., whether they were experiencing a crisis at the time of the incident and the nature of that crisis), (2) features of the officers involved (e.g., the nature of the training they received from their service), (3) actions of the civilian leading up to the use of force (e.g., assaultive behaviour), and (4) a wide range of situational variables (e.g., the number of officers present on scene; Zimring 2017; Shane 2018; Wortley et al. 2020). Additionally, consideration could also be given to whether the

database should capture whether charges were recommended against the officer(s), the nature of those charges, and what the outcome of any charges were (e.g., prosecutions and convictions).

At this point, one could fairly ask, why a national database? Why not rely on the data already collected by individual police services? Our response to this question is two-fold. First, a nationwide database is consistent with how the Canadian police community has handled other issues related to police use of force. For example, since the early 2000s, Canadian police services have relied on a national use-of-force model to help guide use-of-force decision making, training, and how officers should articulate their risk assessment after a use-of-force incident (Hoffman, Lawrence, and Brown 2004). Just as it makes sense to have a unifying framework to enhance consistency in these areas, it makes sense to have a national framework to standardize the collection, storage, and presentation of use-of-force data. This is especially important because differences currently exist across jurisdictions in terms of what data are collected (e.g., draw and display of intervention options versus actual applications of force) and how they are collected (Kiedrowski et al. 2015; Davies et al. 2019; Wortley et al. 2021).

Second, a nationwide database would facilitate the analysis of data to identify trends, which could then be used to establish sensible policy and practice. Given the relatively low base rate of force applications within any given police jurisdiction in Canada, a national database would arguably be needed to generate the sample sizes and sample compositions required for these tasks. A national database, especially one that captures both lethal and non-lethal applications of force, would also allow important research questions to be addressed and theories surrounding the use of force to be tested. For example, as one of the anonymous reviewers for this paper pointed out, "It has been hypothesized that the increased use of CEWs and other less-than-lethal weapons will reduce civilian death at the hands of the police.... Such a valuable analysis would only be possible if there is a standardized dataset on *all* use of force incidents" (emphasis is added).⁴

It is also fair to ask whether it makes sense to rely on the police to provide the data for this nationwide database. Data collected by other entities (e.g., researchers) could be less biased compared to data collected by the police services who were involved in the events (or at least perceived as less biased). While we appreciate these concerns, we think it is important that police services be the ones to provide the data. Not only do the police have immediate access to these data, but they will be able to provide a more complete picture of what transpired in an incident than could be gleaned from any publicly available sources. We also believe that the police will provide accurate use-of-force data if required to do so, even if that data reflects poorly on the organization, as has been seen in recent cases where some police services in Canada have been mandated to collect and release sensitive data (e.g., in Ontario; Singh, Ivany, and Gilchrist 2020). However, even if this is the case, there may still be a need for quality control, as there is for police databases like ViCLAS (Bennell et al. 2012).

Potential benefits of a Canadian use-of-force database

We believe that a national use-of-force database would benefit the public, the police, and academic researchers who study policing issues. Some of the most important benefits that we anticipate are outlined here.

Police transparency

Perhaps more than any other benefit mentioned below, improved police transparency is the benefit that most commentators speak to when they discuss the importance of a national use-of-force database. This is a theme that runs through academic contributions to this topic, opinion pieces, and media commentaries (e.g., White 2016; Laming 2017; Bates 2021). This is not surprising given that transparency is, or at least should be, the core of a public policing philosophy in any free and democratic society (e.g., policing by consent is firmly grounded in support for the police that follows from police transparency, integrity, and accountability; Neyroud 2012).

As others have plainly stated, in a democracy, "the government has a moral obligation to provide information on the frequency and circumstances in which its agents exercise their authority against citizens" (White 2016: 231). Thus, it is not enough for police services in Canada to simply collect use-of-force data; these data must be openly shared with the Canadian public, in an easily accessible form, so that citizens know how often use-of-force incidents occur and the circumstances surrounding these events. Without such transparency, it will be impossible for the public to hold police officers accountable for their actions in use-of-force incidents. It will also be more difficult for the public to trust that police officers in Canada are operating in a fair, just, and legitimate manner (Schafer 2013). This will be especially important for racialized communities in Canada given that they report lower levels of trust and confidence in the police (e.g., Cao 2011, 2014; Wortley and Owusu-Bempah 2016; Samuels-Wortley 2021).

Enhancing perceptions of police legitimacy

Directly related to the issue of police transparency, the development of a national use-of-force database will also potentially impact perceptions of police legitimacy. Police legitimacy is a multifaceted construct that speaks to whether the public views the police as a legitimate source of authority (Tankebe, Reisig, and Wang 2016). According to one model of police legitimacy, which has been validated in Canada (Ewanation et al. 2019), the construct is composed of four factors: (1) police lawfulness (whether police officers conform to established rules/laws), (2) procedural fairness (whether outcomes are reached in a fair way), (3) distributive fairness (whether resources are distributed fairly across groups), and (4) police effectiveness (whether the police obtain effective results; Tankebe et al. 2016). Finding ways to enhance perceptions of police legitimacy is likely to be beneficial; these perceptions are linked to desirable outcomes from a police perspective, such as an increased likelihood that citizens will cooperate with police officers, as well as positive outcomes from a public perspective, such as feeling less likely to be victimized (Ho and McKean 2004; Mazerolle et al. 2013).

A nationwide use-of-force database may positively influence some facets of legitimacy. For example, the database might speak directly to the issue of *police lawfulness* in that it would likely show that force, including lethal force, is a relatively rare occurrence in Canada, and legally justified in most cases. With respect to other facets of perceived legitimacy, a national database may raise concerns, but the data would still allow the police to identify areas where change is necessary for legitimacy to be enhanced. For example, in line with existing research, a nationwide database may indicate that *procedural fairness* is an issue in Canada with respect to use-of-force decision making, in that the applications of force may vary as a function of citizen race (Wortley 2006; Wortley et al. 2020). Whether reflecting positively or

negatively on the police, the database would have value because it would provide concrete steps the police could take to further develop their legitimacy.

Understanding the use of force

As highlighted above, a national use-of-force database would also help address important research questions, which would inform our understanding of complex use-of-force encounters, including why lethal force is sometimes used by police officers (Klinger et al. 2016). Binder and Scharf (1980) appropriately highlighted that police-citizen encounters are "transactional;" in other words, how an officer behaves during an encounter will depend on how the citizen behaves, and how the citizen behaves will depend on how the officer behaves. To properly understand these transactional events, and address concerns about these encounters, information will be needed at the officer, citizen, and event level (Hollis 2018). We will also need to consider community and organizational factors that might impact these events, such as neighbourhood crime rates and the quality of officer training (White 2016). A national use-of-force database, supplemented with other, easily accessible data (e.g., from Canada's census) could provide this necessary information. By collecting and storing information about force encounters and using disaggregated data to provide more context to specific incidents, we will gain important insights into the use of force by Canadian police officers (McEwen 1996).

Mitigation strategies

A specific outcome associated with this enhanced understanding of police use of force is that it may allow strategies to be developed for reducing force, especially the need for high levels of force. For example, a national database could be used to generate insight into why fatal encounters occur (Shane 2018); such insights could potentially result in strategies for minimizing risk or approaching situations differently, which would allow the police to avoid lethal force (Fyfe 1989; Shane 2018). Understanding the circumstances surrounding the application of force could also allow police organizations to develop service-wide, or even system-wide, mitigation strategies. For example, specialized scenario-based training could be designed to reduce the likelihood of a lethal force encounter when that is possible (e.g., by developing sound tactics; Jenkins et al. 2021).

The ability to compare data across agencies included in the database will be particularly useful, allowing important questions to be answered (Klinger et al. 2016). For example, if force is used less frequently in certain agencies, what might explain that? Is it associated with neighbourhood characteristics or organizational policies in agencies that restrict the use of force? Is it associated with the gender makeup of the agencies, or their overall size? Is it associated with the training offered to officers in certain agencies? Is it associated with the greater availability of intermediate weapons or the presence of body-worn cameras? Without understanding the circumstances that result in applications of force, which requires access to reliable and valid data, we will be unable to significantly reduce the likelihood of tragic outcomes (Alpert 2016).

Misconceptions about the use of force

Another by-product of developing a better understanding of the use of force is that the information could be used to educate members of the public, who, as we highlighted above, do not appear to have a good understanding of the topic (Corey and Bennell 2008; O'Neill et al. 2017; Khanizadeh et al. unpublished data; McCaffree and Saide 2021). Although it has

not been studied extensively, the research we cited suggests that the public is often unaware of a police officer's legal authority to use force (e.g., when force is reasonable; Cyr 2016), overestimates the frequency with which force is applied (both lethal and non-lethal; Hall and Votova 2013), misjudges the abilities of officers (e.g., in terms of their marksmanship skills, especially under stress; Morrison and Vila 1998), and does not understand use-offorce dynamics (e.g., action-reaction issues; Wisecarver and Tucker 2007).

While the public has legitimate reasons to feel confused and angry about some of the use-of-force incidents that are occurring, especially when that force is judged to be excessive or applied in a biased fashion, fruitful dialogue between the public and the police is important if we are to find ways to enhance trust and meaningfully reduce the conditions that result in the application of force. In our opinion, such dialogue will be more likely if the police understand what the public thinks about use-of-force issues and if the public has a better understanding of when and why force is used by police officers (Bennell et al. 2021). A national use-of-force database will provide the sort of data that can be used in public education efforts, which should in turn create opportunities for informed conversations to take place.

Addressing problems with media databases

To date, media databases provide the best available data on lethal force encounters in both the United States and Canada.⁵ However, as noted above, concerns have been raised regarding the accuracy of these databases, largely because of inconsistencies that have been found between government-provided data and data collected by the media, and because no controls are in place to make sure the information included in the databases is accurate or complete (Klinger and Slocum 2017; Lim 2017). Media databases were created by journalists who use information available to them from the public domain. Because of this, they often provide only a partial picture of the events that took place (White 2016).

For example, cases included in these databases often lack important contextual information (e.g., behaviours exhibited by the citizen, which is typically included in police records; White 2016; Shane 2018). In addition, there are no clear criteria for including lethal incidents in media databases. For instance, Klinger and Slocum (2017) discussed how databases that include "unarmed" citizens killed by police may lead some to believe that officers made an unjustifiable decision when shooting the individual. However, in their review of the Washington Post database, Klinger and Slocum found multiple instances where the decision to shoot was based on imminent threat to the officer's safety, despite the civilian being unarmed. In one case, an unarmed person attempted to strangle an officer after knocking him unconscious; in another case an unarmed individual was shot while attempting to drown an officer.

While not scrutinized to the same extent, similar issues can be raised about the CBC's deadly force database. For example, our analysis of this database has revealed that some cases it includes involve civilian deaths that appear to have little to do with the use of force by police officers (Brook et al. 2021). On the other hand, the CBC database includes only cases in which people have died, which means that any cases in which the officer intended to use deadly force but the citizen survived are not included (Laming 2017). In addition, while the CBC database includes some basic information about each event (e.g., the police service that was involved in the incident, weapons that were present, and the citizen's race and age), other important information that is required to fully understand the incident

is not included (e.g., whether the individual who was killed presented a threat of serious bodily harm or death; Brook et al. 2021). Finally, questions surrounding the reliability of the CBC data remain. For instance, it is unclear what sources were relied on to gather the data, how conflicts across sources were handled, how certain variables were operationalized (e.g., mental health issues), and what quality assurance procedures were implemented (Brook et al. 2021).

Thus, people need to be cautious about what they infer from data included in media databases, including the CBC database, and the statistics that are generated from them. A national database, populated with lethal force data from police records that are carefully scrutinized and meet sensible inclusion criteria, should provide a much more complete and accurate account of deadly force encounters with the police in Canada.

Potential challenges associated with a Canadian use-of-force database

Despite the numerous benefits that would be associated with a national use-of-force database, we also anticipate that many challenges will be encountered. We describe some of the likely challenges below.

Mandatory reporting

For a national use-of-force database to be useful, all lethal and non-lethal use-of-force incidents must be recorded, and as mentioned above, compliance is a significant issue when reporting is voluntary (Brown and Langan 2001; Klinger 2012; Williams, Bowman, and Jung 2019). Severe gaps in reporting result in missing data, which drastically limits the value associated with national databases and the inferences that can be drawn from them (Brown and Langan 2001; Zimring 2017; Shane 2018). This same outcome would most likely occur in Canada if participation in the national database was not mandated.

A related challenge would be encountered if certain types of data were restricted, such as the race of individuals interacting with the police. This is a particularly relevant issue to discuss here because Canadian police agencies have historically placed an "informal ban" on reporting such data (Wortley 1999; Millar and Owusu-Bempah 2011; Samuels-Wortley 2021). In fact, while most police agencies in Canada collect race-based data (Huey, Ferguson, and Vaughan 2021), this information is not made public or shared with Statistics Canada, and it is not always accurate. Furthermore, when Statistics Canada does have this information, individuals must overcome numerous barriers to access it (Millar and Owusu-Bempah 2011; Samuels-Wortley 2021). As our nation grapples with issues of overt and systemic racism, it is imperative that we have adequate data to determine the extent to which racialized groups are over-represented in use-of-force incidents. This is the only way that we will be able to determine the true extent of this problem and identify potential solutions aimed at reducing over-representation.

The federalist nature of policing in Canada also raises some significant concerns for mandatory reporting (Robertson 2012). Indeed, like in the United States, there is no overarching governance of police record keeping in this country, which means the development of a national reporting structure to make use-of-force reporting (and all relevant variables) mandatory will be a challenge. While all police use of force must be consistent with the *Criminal Code of Canada* and the *Canadian Charter of Rights and Freedoms*, the reporting system for the use of force, and most other aspects of policing, is determined at the

provincial level (Kiedrowski et al. 2015; Davies et al. 2019; Wortley et al. 2020). Currently, it appears that most provincial police standards⁶ provide little direction regarding the exact nature of information that needs to be captured in use-of-force reports (Davies et al. 2019). Therefore, the implementation of mandatory reporting for all police services would likely require the coordination of different branches of government responsible for overseeing policing in Canada.

Beyond mandatory reporting challenges that will arise because of federalism, the impact of more general implementation challenges should not be underestimated. Indeed, there are countless examples in Canada in which a criminal justice policy proposal has been compelling only to have the policy fail during the implementation stage of the policy cycle. Canada's "rape shield" is one example. Designed to protect complainants in sex offence cases against rape myths and sexist stereotypes, rape shield reforms have not had their intended impact (McNabb and Baker 2021). In their analysis, McNabb and Baker suggested that this is because too much attention has been given to due process considerations (e.g., whether the provisions will add to trial delays) throughout the various iterations of reforms and not enough to implementation challenges introduced by courtroom actors (e.g., whether biases of judges will prevent proper implementation of the provisions). Other failed policy examples include the creation of Indigenous Healing Lodges and Gladue case reports,8 both of which were designed to reduce Indigenous over-representation in the criminal justice system. Each initiative has arguably failed to live up to expectations, in part because important implementation issues were not considered (Edwards 2017; Office of the Correctional Investigator 2012).

The policy cycle is a useful heuristic that may have value when thinking through the process of developing a mandatory nationwide use-of-force database. Without carefully considering each step of the cycle, including the various challenges described below, we fear that this initiative will meet the same fate as so many other well-intentioned plans to improve the Canadian criminal justice system.

Resistance from the policing community

As alluded to earlier, one of the main challenges we anticipate in establishing a Canadian use-of-force database, and one that would obviously need to be dealt with from the outset, is resistance from the policing community. There is ample evidence for this from the United States. Indeed, such resistance was evident in early attempts to develop nationwide use-of-force databases (Alpert 2016; White 2016; Zimring 2017), and it appears to have gotten no better over time. For example, in the most recent attempt by the FBI to report national use-of-force data, which began in 2019, only 27% of U.S. police services have supplied annual data over the last two years (Jackman 2021). According to Jackman (2021), this is occurring "despite a presidential order, congressional demands, and a proposed new law requiring police to tell the FBI how often officers use force" (para. 1).

Numerous factors appear to underlie this resistance. For example, some U.S. police chiefs have claimed that the processes put in place to submit data to national databases can be cumbersome and time consuming, requiring substantial resources to fully participate (Jackman 2021). Others have highlighted the fact that federal government initiatives can be easily ignored given amendments in the U.S. Constitution that prevent the federal government from mandating data reporting (i.e., that is a state responsibility; Hickman and

Poore 2016). Still others have suggested that police services in the United States may be resistant to sharing data due to a police culture of secrecy and solidarity, a desire to shield themselves from public complaints about their use of force and prevent reputational damage, or a belief that they own the data and therefore can decide who should get access to it (White 2016; Nix et al. 2017; Williams et al. 2019). Relatedly, fear of legal liability has been raised as a concern for police services, especially if their data reveal evidence of excessive or biased force (Henriquez 1999).

There has been a similar lack of willingness by Canadian police services to share their use-of-force data widely and a surprising lack of leadership from the government in calling for this to happen. This is despite the frequent calls for more standardized use-of-force data collection and reporting, which have been made by academics (e.g., Laming 2016; Davies et al. 2019; Wortley et al. 2020) and various other bodies (e.g., Commission on Systemic Racism in the Ontario Criminal Justice System 1996; Ontario Human Rights Commission 2014; House of Commons 2021). The precise reasons for this resistance are unclear, but we suspect they are very similar to those that have caused reluctance in the United States, which we have described above (see also Wortley et al. 2021). Each of these issues will no doubt cause challenges for the development of a nationwide database in Canada, and work will need to be done to successfully overcome these challenges.

Establishing case inclusion criteria

Assuming that resistance from police services can be overcome, challenges would also be encountered in determining what data should be included in a nationwide use-of-force database. As argued above, we believe that both lethal and non-lethal use of force should be captured in the database, but clear inclusion criteria will still need to be established.

One issue that warrants careful consideration is whether drawing and displaying a firearm, or any other weapon, should be included in the database. In the United States, it is the norm for police services to require reports when officers discharge their firearm, but far fewer require officers to record instances where they draw and display their pistol. In fact, Jennings and Rubado (2017) found that less than half of the 3000 agencies included in their dataset had a policy requiring draw-and-display reports in 2013. We are not aware of similar U.S. data for other intervention options, such as CEWs. We are also unaware of similar statistics in Canada for firearms or other weapons, but recent work in this area suggests that it is not standard practice for Canadian police services to have such policies (Walker and Bennell 2021). Given research showing that having draw-and-display reporting policies for firearms is associated with significantly lower rates of gun deaths by police officers, this is a real concern (Jennings and Rubado 2017). We believe drawing and displaying a weapon is a clear show of force, that draw-and-display reporting policies should be in place in every service, and that these incidents should be included in a national use-of-force database.

With respect to intermediate weapons specifically, we propose that very broad inclusion criteria be adopted for a nationwide use-of-force database, especially given the contentious nature of police use of force and the fact that members of racialized communities in Canada are over-represented in incidents involving intermediate weapon use by police officers (and other types of force; e.g., Wortley et al. 2020). In our view, the use of traditional weapons should obviously be included in the database, such as batons, pepper spray, and CEWs, but so too should other intervention options that have potential to cause harm. This might

include weapons of opportunity or the use of K-9s, even though K-9s are often not included on use-of-force continua and are frequently seen as "tools" by police services instead of "weapons" because they have multiple functions, only one of which is as a use-of-force option (e.g., locating missing persons, searching for explosives, finding crime scene evidence; Dorriety 2005).

Inclusion criteria would also need to be established for lower levels of force, such as empty-handed physical control techniques. These techniques are typically categorized as "hard" physical force or "soft" physical force in Canada. According to the Canadian Association of Chiefs of Police (2000: 10):

Soft techniques are control oriented and have a lower probability of causing injury. They may include restraining techniques, joint locks and non-resistant handcuffing. Hard techniques are intended to stop a subject's behaviour or to allow application of a control technique and have a higher probability of causing injury. They may include empty hand strikes such as punches and kicks.

Currently, hard techniques appear to be recorded across most jurisdictions in Canada, but soft techniques tend to be captured only if they result in injury. Given this, should soft techniques that do not cause injury be included in a national use-of-force database? From our perspective, while soft techniques are certainly of interest, especially because the public likely perceives their use as a clear application of force that is worth documenting, the burden of consistently recording their application would be significant for police services given how frequently they are used. Until technology becomes available to ease this coding burden, we suggest that hard techniques be included in the database but that soft techniques that do not result in injury be excluded. However, this exclusion should be explicitly acknowledged so that the public and other users of the database are aware that these incidents are not captured.

Standardizing reports across jurisdictions

Not only does the reporting of the use of force need to be mandatory, and meet sensible inclusion criteria, but the information submitted by police agencies must be consistent to ensure that high quality information is captured in the database. As mentioned above, a lack of consistency across police agencies is likely to occur because of the lack of direction from provincial governing bodies regarding the information that needs to be documented in use-of-force reports (Davies et al. 2019; Wortley et al. 2021). Further inconsistencies may result from differences in the ways that data are captured. For example, some agencies may capture most information using drop-down menus whereas other agencies may rely primarily on free narratives. Transforming such data to make them consistent is resource intensive, so it would be ideal to eliminate such differences instead. Consideration would also need to be given to the instructions included on use-of-force reports, which are currently vague and subject to interpretation by officers (Kiedrowski et al. 2015).

Standardized reporting across Canada could be achieved through the development of mandatory data collection forms that would be completed by all police agencies when force is used. Ideally, these forms would include clear instructions and definitions of key terms so that it is clear to all officers (and supervisors) what needs to be recorded and how. Fortunately, significant strides toward this goal have been made already in some jurisdictions. For example, the Ministry of the Solicitor General in Ontario has recently created

a standardized form that all police services in that province must use. The form captures useful information about use-of-force incidents, including variables like perceived citizen race (Ministry of the Solicitor General 2021). In jurisdictions where less progress has been made, replacing existing forms that officers already use to record their use of force with standardized forms like those now being used in Ontario would not be expected to increase officers' administrative duties substantially, and therefore additional internal resources would likely not be required.

If more substantial reform is desired, the process currently in place within the RCMP may act as a useful model (RCMP 2020). Since 2010, the RCMP has had a robust process in place for use-of-force data collection and analysis, and a number of the features built into this process may be particularly appealing. First, their data collection process does not simply focus on capturing use-of-force variables; it requires officers to fully articulate their risk assessment process, which provides a fuller picture of what occurred during an incident and why force was used. Second, various oversight and accountability mechanisms are integrated into the process to ensure that the force used was appropriate. For example, while all reports are reviewed at the supervisor level, certain cases are automatically flagged for additional review at the provincial/territorial (headquarters) level (e.g., use of CEWs) and others are flagged if the use of force conflicts with agency policy or training. Third, a wider range of data is captured than is typical in many other agencies, including details related to "emotionally disturbed" persons (a term used by the RCMP to refer generally to people in crisis), and variables related to use-of-force effectiveness and injuries. Finally, data fields are fully integrated into a database application, which allows for extensive analysis. This feature, combined with the fact that variable tables are fully linked, means that an impressive level of analytical granularity can be achieved. The most obvious limitation of the RCMP data is that some important variables are still not captured, including citizen race. However, according to the RCMP (2020), it is currently developing an approach to collect and report on race-based data.

Challenges with capturing certain variables

While using standardized reporting forms is achievable, there may still be challenges associated with capturing certain variables. For example, given the concerns that have been raised around the use of force on persons with a mental illness, a variable capturing this information would be ideal (Rossler and Terrill 2017; Singh 2020). However, information regarding someone's health is protected under privacy laws, meaning that information is not readily available. Therefore, the presence of mental illness would need to be based on the officer's perception, which may not be accurate. Given this, it would need to be made clear to those examining the database that the variable captured here was *perceived* mental illness.

Similar arguments could be made for whether the civilian was intoxicated at the time of the encounter or whether they suffered injuries, which are not always immediately obvious. While toxicology reports and hospital reports might include this sort of information, privacy concerns would also arise, as would the burden of tracking down this information to record it. Thus, like the challenge of accurately capturing whether an individual has a mental illness, capturing these variables, while not impossible, would be difficult. If such variables are ultimately deemed important to collect, determining how to capture the information should involve community consultations, particularly with people with lived experiences.

Who will be responsible for data collection and storage?

Concerns surrounding a lack of consistency in the type and format of information captured for a national use-of-force database raises several other logistical questions, which we currently do not have answers for. For example, who should be responsible for entering data into the database? Should police agencies directly enter data into the system, or should completed use-of-force reports be provided to a third party who would then validate and enter the information? Relatedly, what mechanisms should be in place to ensure that the information entered is accurate? These are particularly important issues given the distrust that some members of the public have of the police (Wortley and Owusu-Bempah 2009; Samuels-Wortley 2021).

Other logistical questions concern the point at which a use-of-force report should be entered into the database, especially in cases where lethal force was used. Should this be done as soon as possible, with the caveat that information be updated as required if investigations or trial proceedings reveal alternative information? Or, given concerns that the release of information may influence the investigative process, should the report not be entered until all investigations and criminal proceedings are complete? And should the database capture historical cases of lethal force? If so, how far back should these go, and at what point does this become impossible given that agencies may not have always been tracking information in a way that allows for easy searches and extractions?

Decisions will also need to be made about where the database will be housed. To address concerns regarding police oversight (e.g., Hope 2020), we believe the database should be housed in an external agency. One possibility would be the Canadian Centre for Justice Statistics (CCJS). The CCJS is the operational arm of the National Justice Statistics Initiative, which emerged in 1981 with a mandate "to provide information to the justice community and the public on the nature and extent of crime and victimization and the administration of criminal and civil justice in Canada" (Statistics Canada 2021). The CCJS, which is a division of Statistics Canada, "is responsible for the development, collection, integration and analysis of data that reflect trends in Canada" (Statistics Canada 2021), making it a potentially ideal home for a nationwide use-of-force database.

Furthermore, for the database to have the greatest impact, we believe the information included in it should be stored in a format that is accessible by anyone, including the general public and all interested researchers, and able to be analysed. That being said, a balance may need to be struck in some cases between complete transparency and issues of privacy. For example, this may be true in situations where an individual is non-fatally shot by police and does not want their information made public. Given the multifaceted nature of these challenges, and their implications for the database that is ultimately developed, it is essential to involve groups of diverse stakeholders in deciding how all the questions posed in this section should be answered, especially the privacy issues. The consultation process will likely need to involve the Office of the Privacy Commissioner of Canada, provincial and territorial equivalents, privacy researchers, and representatives from the public.

Conclusion

A database like the one we describe in this paper will not eliminate all the concerns that some Canadians might have with policing, but it will hopefully address some of their concerns about police use of force by helping to increase police transparency and accountability. The

database will also be of value to the police; not only will it allow them to show the public that the use of force, particularly lethal force, is rare in Canada and legally justified in most instances, but it will contribute to people's understanding of when and why force is sometimes used. Finally, the development of a national use-of-force database will benefit policing researchers who are interested in understanding the complexities of use-of-force encounters, testing theories for why force is used in some circumstances more than others, and identifying use-of-force trends. This research should allow evidence-based strategies to be developed to minimize the likelihood that force is used by the police. Undoubtedly, many challenges will be encountered when developing a database; however, we believe not only that these challenges are possible to overcome, but that doing so will provide real value to Canadian society.

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Conflicts of Interest

Two of the authors (AJK and AM) work part-time for a Canadian police service. The views and opinions expressed in this article are those of the authors and do not represent an official position of the agency they work for.

Notes

- Because of the way the question was asked of students in the survey, it is not entirely clear what they think "used" meant. For example, we do not know whether the students included instances where firearms are drawn and displayed in their estimate of "firearm use" or just instances where firearms are discharged. Similarly, in Hall and Votova's (2013) study, it is unclear if they included instances where firearms were drawn and displayed or discharged. They defined their variable related to firearm use as "firearm pointed." Given these issues, caution is warranted when interpreting these findings.
- 2 It is not clear how many of these 270,000 calls for service involved the use of force by Vancouver police officers, although in 2020, there appears to have been 305 recorded use-of-force events in Vancouver.
- 3 To access the database, see: https://www.washingtonpost.com/graphics/investigations/police-shootings-database/
- 4 We would like to thank this anonymous reviewer for highlighting the issues discussed in this paragraph.
- 5 Lethal force encounters are the focus of such databases. They do not include non-fatal encounters.
- 6 Standards are in place within the RCMP, the agency that is responsible for providing police services to Canada's three territories.
- 7 We would like to thank one of the anonymous reviewers for drawing our attention to the policy cycle and to some of the research discussed here. The policy cycle consists of five stages: (1) agenda setting, where a problem is identified and defined, (2) policy formulation, where consideration is given to the most appropriate actions that will achieve the desired policy goals, (3) decision making, where decisions are made about how the policy will be implemented after careful consideration of the conditions and constraints that exist within the implementation environment, and how implementation barriers will be overcome, (4) implementation, where the policy is executed

- in the field, and (5) evaluation, where criteria are established to measure the performance of the policy, and the policy and its implementation are formally assessed (McNabb and Baker 2021). Challenges can, of course, exist at each stage of the policy cycle, beyond the implementation challenges we focus on, and challenges experienced at one stage can influence other stages.
- 8 Designed to address the negative impact that colonization has had on Indigenous defendants, these are pre-sentence or bail hearing reports produced by a Gladue caseworker at the request of the court, which includes information about the defendant's unique background (e.g., residential school history, child welfare involvement, physical or sexual abuse). The judge can then consider these factors when making decisions.
- 9 Given that our discussion is focused on the development of a national use-of-force database, we assume wide agreement would be reached that in-custody deaths (e.g., overdoses) would not be included, unless the use of force by a police officer was a contributing factor in the death. In this way, those deaths will not be conflated with use-of-force-related deaths as they might be with media databases that include them.

References

Alpert, G. P.

2016. Toward a national database of officer-involved shootings. Criminology and Public Policy 15: 237–42. https://doi.org/10.1111/1745-9133.12178

Baldwin, S., C. A. Hall, C. Bennell, B. Blaskovits, and C. Lawrence

2016. Distinguishing features of excited delirium syndrome in non-fatal use of force encounters. Journal of Forensic and Legal Medicine 41: 21–7. https://doi.org/10.1016/j.jflm.2016.03.006. Medline:27107564

Bates, J.

2021. Can a new, open-source police brutality database help to hold police departments accountable? Time, 11 February. https://time.com/5938038/accountable-now-police-force-database/.

Bennell, C., G. Alpert, J. P. Andersen, J. Arpaia, J.-M. Huhta, K. B. Kahn, A.-J. Khanizadeh, M. McCarthy, K. McLean, R. J. Mitchell, A. Nieuwenhuys, A. Palmer, and M. D. White 2021. Advancing police use of force research and practice: Urgent issues and prospects. Legal and Criminological Psychology 26(2):121–144. Advance online publication. https://doi.org/10.1111/lcrp.12191

Bennell, C., B. Snook, S. Macdonald, J. C. House, and P. J. Taylor

2012. Computerized crime linkage systems: A critical review and research agenda. Criminal Justice and Behavior 39(5): 620–34. https://doi.org/10.1177/0093854811435210

Binder, A. and P. Scharf

1980. The violent police-citizen encounter. The ANNALS of the American Academy of Political and Social Science 452(1): 111–21. https://doi.org/10.1177/000271628045200111

Brink, J., J. Livingston, S. Desmarais, C. Greaves, V. Maxwell, E. Michalak, R. Parent, S. Verdun-Jones, and C. Weaver

2011. A study of how people with mental illness perceive and interact with the police. Ottawa: Mental Health Commission of Canada.

Brook, G., B. Jenkins, T. Semple, and C. Bennell

2021. A review of lethal force incidents included in the CBC's deadly encounters database [Unpublished manuscript]. Department of Psychology, Carleton University.

Brown, J. M. and P. A. Langan

2001. Policing and homicide, 1976–98: Justifiable homicide by police, police officers murdered by felons. NCJ 180987. Washington, DC: U.S. Department of Justice.

Canadian Association of Chiefs of Police

2000. A national use of force framework. Ottawa, ON: Canadian Association of Chiefs of Police. https://www.cacp.ca/cacp-use-of-force-advisory-committee-activities.html?asst_id=199.

Cao, L.

2011. Visible minorities and confidence in the police. Canadian Journal of Criminology and Criminal Justice 53(1): 1–26. https://doi.org/10.3138/cjccj.53.1.1

Cao, L.

2014. Aboriginal people and confidence in the police. Canadian Journal of Criminology and Criminal Justice 56(5): 499–526. https://doi.org/10.3138/cjccj.2013.e05

Commission on Systemic Racism in the Ontario Criminal Justice System

1996. Final report of the Commission on Systemic Racism in the Ontario criminal justice system. Toronto, ON: Queen's Printer.

Corey, S. and C. Bennell

2008, October 16–18. Investigating beliefs related to use-of-force encounters among police officers and jury-eligible members of the public [Conference session]. Annual Meeting of the Society for Police and Criminal Psychology, Walnut Creek, CA, United States.

Cyr, K.

2016. Police use of force: Assessing necessity and proportionality. Alberta Law Review 53(3): 663–79. https://doi.org/10.29173/alr424

Davies, G., J. Johnston, T. Hinton, V. Zdjelar, and S. Dawson

2019. The truth does not always speak for itself: Subject Behavior-Officer Response reporting of police use of force. Police Practice and Research 22(3): 1241–58. Advance online publication. https://doi.org/10.1080/15614263.2019.1689134

Dorriety, J. K.

2005. Police service dogs in the use-of-force continuum. Criminal Justice Policy Review 16(1): 88–98. https://doi.org/10.1177/0887403404266758

Draaisma, M.

2021. Lawyer calls on SIU to reopen investigation into police shooting death of Jamal Francique. CBC News, 4 May. https://www.cbc.ca/news/canada/toronto/jamal-francique-peel-police-shooting-death-reopen-investigation-lawyer-1.6014158.

Dubé, P.

2016. A matter of life and death: Investigation into the direction provided by the Ministry of Community Safety and Correctional Services to Ontario's police services for ed-escalation of conflict situations. Ombudsman Ontario. https://www.ombudsman.on.ca/resources/reports-and-case-summaries/reports-on-investigations/2016/a-matter-of-life-and-death#Training%20wheels.

Edwards, F., H. Lee, and M. Esposito

2019. Risk of being killed by police use of force in the United States by age, race–ethnicity, and sex. Proceedings of the National Academy of Sciences 116(34): 16793–8. https://doi.org/10.1073/pnas.1821204116. Medline:31383756

Edwards, K.

2017, **October 18**. Why Gladue has not lived up to its promise for indigenous justice. Maclean's. https://www.macleans.ca/news/canada/why-gladue-has-not-lived-up-to-its-promise-for-indigenous-justice/.

Ewanation, L., C. Bennell, B. Blaskovits, and S. Baldwin

2019. Validating the police legitimacy scale with a Canadian sample. Canadian Journal of Criminology and Criminal Justice 61(4): 1–23. https://doi.org/10.3138/cjccj.2018-0036

Fridell, L. and H. Lim

2016. Assessing the racial aspects of police force using the implicit and counter-bias perspectives. Journal of Criminal Justice 44: 36–48. https://doi.org/10.1016/j.jcrimjus. 2015.12.001

Fyfe, J. J.

1989. Police-citizen violence reduction project. FBI Law Enforcement Bulletin 58: 18-25.

Hall, C. A. and K. Votova

2013. Prospective analysis of police use of force in four Canadian cities: Nature of events and their outcomes. Defense Research and Development Canada. http://publications.gc.ca/collections/collection_2016/rddc-drdc/D68-3-011-2013-eng.pdf.

Hamilton Police Service

2021. 2020 use of force data incident data. Hamilton Police Service. https://hamiltonpolice.on.ca/sites/default/files/hps_2020_uof_incident_data.pdf.

Henriquez, M. A.

1999. IACP national database project on police use of force. Washington, DC: National Institute of Justice.

Hickman, M. J. and J. E. Poore

2016. National data on citizen complaints about police use of force: Data quality concerns and the potential (mis)use of statistical evidence to address police agency conduct. Criminal Justice Policy Review 27(5): 455–79. https://doi.org/10.1177/0887403415594843

Ho, T. and J. McKean

2004. Confidence in police and perceptions of risk. Western Criminology Review 5(2): 108-18.

Hoffman, R., C. Lawrence, and G. Brown

2004. Canada's national use-of-force framework for police officers. Police Chief 71(10): 125-6.

Hollis, M. E.

2018. Measurement issues in police use of force: A state-of-the-art review. Policing: An International Journal 47(6): 844–58. https://doi.org/10.1108/pijpsm-11-2017-0137

Hope, K. R.

2020. Civilian oversight for democratic policing and its challenges: Overcoming obstacles for improved police accountability. Journal of Applied Security Research 16(4): 423–55. Advance online publication. https://doi.org/10.1080/19361610.2020.1777807

House of Commons

2021. Systemic racism in policing in Canada: Report of the standing committee on public safety and national security. House of Commons. https://www.ourcommons.ca/DocumentViewer/en/43-2/SECU/report-6.

Huey, L., L. Ferguson, and A. D. Vaughan

2021. The limits of our knowledge: Tracking the size and scope of police involvement with persons with mental illness. Ottawa, ON: Royal Society of Canada.

Iacobucci, F.

2014. Police encounters with people in crisis: An independent review conducted by the honourable Frank Iacobucci for chief of police William Blair, Toronto Police Service. Toronto Police Service. https://www.torontopolice.on.ca/publications/files/reports/police_encounters_with_people_in_crisis_2014.pdf.

Jackman, T.

2021. For a second year, most U.S. police departments decline to share information on their use of force. The Washington Post, 9 June. https://www.washingtonpost.com/nation/2021/06/09/police-use-of-force-data/.

Jenkins, B., T. Semple, T. Wollert, and C. Bennell

2021. Optimizing scenario-based training for law enforcement. In Interventions, Training, and Technologies for Improved Police Well-Being and Performance, ed. B. B. Arnetz and A. Arble. Hershey, PA: IGI Global.

Jennings, J. T. and M. E. Rubado

2017. Preventing the use of deadly force: The relationship between police agency policies and rates of officer-involved gun deaths. Public Administration Review 77(2): 217–26. https://doi.org/10.1111/puar.12738

Jetelina, K. K., W. G. Jennings, S. A. Bishopp, A. R. Piquero, and J. M. Reingle Gonzalez 2017. Dissecting the complexities of the relationship between police officer–civilian race/ ethnicity dyads and less-than-lethal use of force. American Journal of Public Health 107(7):

1164-70. https://doi.org/10.2105/ajph.2017.303807. Medline:28520479

Kiedrowski, J. S., R.-F. Melchers, M. Petrunik, and C. Maxwell

2015. A discussion of the collection and analysis of data on the use of force in encounters between the police and members of the public. Ottawa, ON: Public Safety Canada.

Klinger, D. A.

2012. On the problems and promise of research on lethal police violence: A research note. Homicide Studies 16(1): 78–96. https://doi.org/10.1177/1088767911430861

Klinger, D. A., R. Rosenfeld, D. Isom, and M. Deckard

2016. Race, crime, and the micro-ecology of deadly force. Criminology and Public Policy 15(1): 193–222. https://doi.org/10.1111/1745-9133.12174

Klinger, D. A. and L. A. Slocum

2017. Critical assessment of an analysis of a journalistic compendium of citizens killed by police gunfire. Criminology and Public Policy 16(1): 349–62. https://doi.org/10.1111/1745-9133.12283

Kwon, J. and S. Wortley

2020. Policing the police: Public perceptions of civilian oversight in Canada. Race and Justice. Advance online publication.

Laming, E.

2016. Police reform starts with tracking use of deadly force. Huffington Post, 19 July. https://www.huffpost.com/archive/ca/entry/deadly-force-by-police_a_23034831.

Laming, E.

2017. Canada needs a national database to track deadly force by police. Huffington Post, 18 July. https://www.huffingtonpost.ca/erick-laming/deadly-force-by-police_a_23034831/.

Lim, H.

2017. Police bias, use of deadly force, public outcry. Criminology and Public Policy 16(1): 305–8. https://doi.org/10.1111/1745-9133.12293

Magee, S.

2021. Emails show police chief's upset over perception of force after Chantel Moore shooting. CBC News, 19 April. https://www.cbc.ca/news/canada/new-brunswick/chantel-moore-shooting-edmundston-police-documents-1.5990336.

Marcoux, J. and K. Nicholson n.d.

Deadly force. CBC News. https://newsinteractives.cbc.ca/longform-custom/deadly-force.

Maru, S.

2021. Visible minorities disproportionately affected by Windsor police use of force in 2020: Report. CBC News, 22 February. https://www.cbc.ca/news/canada/windsor/use-of-force-windsor-police-report-1.5920409.

Mazerolle, L., S. Bennett, J. Davis, E. Sargeant, and M. Manning

2013. Legitimacy in policing: A systematic review. Campbell Systematic Reviews 9(1): i–147. https://doi.org/10.4073/csr.2013.1

McCaffree, K. and A. Saide

2021. How informed are Americans about race and policing? Skeptic Research Center. https://www.skeptic.com/research-center/reports/Research-Report-CUPES-007.pdf.

McEwen, T.

1996. National data collection on police use of force. Washington, DC: US Department of Justice.

McNabb, D. and D. Baker

2021. Ignoring implementation: Defects in Canada's "rape shield" policy cycle. Canadian Journal of Law and Society/Revue Canadienne Droit Et Société 36(1): 23–46. https://doi.org/10.1017/cls.2020.35

Millar, P. and A. Owusu-Bempah

2011. Whitewashing criminal justice in Canada: Preventing research through data suppression. Canadian Journal of Law and Society 26(3): 653–61. https://doi.org/10.3138/cjls.26.3.653

Ministry of the Solicitor General

2021. Use of force report. Ministry of the Solicitor General. https://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/FormDetail?OpenForm&ACT=RDR&TAB=PROFILE&SRCH=&ENV=WWE&TIT=008-0270E&NO=008-0270E.

Morrison, G. B. and B. J. Vila

1998. Police handgun qualification: practical measure or aimless activity? Policing: An International Journal of Police Strategies and Management 21(3): 510–33. https://doi.org/10.1108/13639519810228804

Nasser, S.

2021. No charges in death of Ejaz Choudry, 62-year-old shot and killed by police while in crisis. CBC News, 6 April. https://www.cbc.ca/news/canada/toronto/ejaz-choudry-no-charges-siu-peel-police-1.5976266.

Neyroud, P.

2012. Police and ethics. In Handbook of policing, ed. T. Newburn, 694-720. Abingdon, UK: Wilan.

Nix, J., B. A. Campbell, E. H. Byers, and G. P. Alpert

2017. A bird's eye view of civilians killed by police in 2015: Further evidence of implicit bias. Criminology and Public Policy 16(1): 309–40. https://doi.org/10.1111/1745-9133.12269

Office of the Correctional Investigator

2012. Spirit matters: Aboriginal people and the Corrections and Conditional Release Act. Office of the Correctional Investigator. https://www.oci-bec.gc.ca/cnt/rpt/oth-aut/oth-aut20121022-eng.aspx.

O'Neill, D. A., S. Pirsig, E. Stark, and K. Hanson

2017, **September 13–16**. Realities vs. perceptions of police use-of force dynamics [Conference session]. Annual Meeting of the Society for Police and Criminal Psychology, San Diego, CA, United States.

Ontario Human Rights Commission

2014. Report of the Ontario Human Rights commission on police use of force and mental health. Ontario Human Rights Commission. http://www.ohrc.on.ca/en/report-ontario-human-rights-commission-police-use-force-and-mental-health.

Owusu-Bempah, A.

2011. Race-based criminal justice data in Canada: Suggestions for moving forward. Public Safety Canada. https://www.publicsafety.gc.ca/lbrr/archives/cn37453-eng.pdf.

Puddister, K. and D. McNabb

2021. When the police break the law: The investigation, prosecution and sentencing of Ontario police officers. Canadian Journal of Law and Society. Advance online publication. https://doi.org/10.1017/cls.2021.3

Robertson, N.

2012. Policing: Fundamental principles in a Canadian context. Canadian Public Administration 55(3): 343–63. https://doi.org/10.1111/j.1754-7121.2012.00227.x

Rossler, M. T. and W. Terrill

2017. Mental illness, police use of force, and citizen injury. Police Quarterly 20(2): 189–212. https://doi.org/10.1177/1098611116681480

Royal Canadian Mounted Police 2020, October 28

2010. to 2019. police intervention options report. Royal Canadian Mounted Police. https://www.rcmp-grc.gc.ca/transparenc/police-info-policieres/intervention/2010-2019-eng.htm.

Samuels-Wortley, K.

2021. To serve and protect whom? Using composite counter-storytelling to explore Black and indigenous youth experiences and perceptions of the police in Canada. Crime and Delinquency 67(8): 1137–64. https://doi.org/10.1177/0011128721989077

Schafer, J. A.

2013. The role of trust and transparency in the pursuit of procedural and organisational justice. Journal of Policing, Intelligence and Counter Terrorism 8(2): 131–43. https://doi.org/10.1080/18 335330.2013.821738

Shane, J. M.

2018. Improving police use of force: A policy essay on national data collection. Criminal Justice Policy Review 29(2): 128–48. https://doi.org/10.1177/0887403416662504

Shjarback, J. A.

2019. State-mandated transparency: A discussion and examination of deadly force data among law enforcement agencies in Texas. Journal of Crime and Justice 42(1): 3–17. https://doi.org/10.1080/0735648x.2018.1547353

Simpson, N.

2020. Canada has race-based police violence too: We don't know how much. The Tyee, 2 June. https://thetyee.ca/Analysis/2020/06/02/Canada-Race-Based-Violence/.

Singh, I.

2020. 2020 already a particularly deadly year for people killed in police encounters, CBC research shows. CBC News, 23 July. https://newsinteractives.cbc.ca/fatalpoliceencounters/.

Singh, I., K. Ivany, and S. Gilchrist

2020. Why race-based data collection by police could play a role in reform debate. CBC News, 7 July. https://www.cbc.ca/news/canada/race-police-data-ontario-1.5636301.

Statistics Canada

2021. Crime and justice statistics. Statistics Canada. https://www.statcan.gc.ca/eng/sub-jects-start/crime_and_justice.

Stelkia, K.

2020. An exploratory study on police oversight in British Columbia: The dynamics of accountability for Royal Canadian Mounted Police and municipal police. Sage Open 10(1). https://doi.org/10.1177/2158244019899088

Swaine, J. and O. Laughland

2015. Eric Garner and Tamir Rice among those missing from FBI record of police killings. The

Guardian, 15 October. theguardian.com/us-news/2015/oct/15/fbi-record-police-killings-tamir-rice-eric-garner.

Tankebe, J., M. D. Reisig and X. Wang

2016. A multidimensional model of police legitimacy: A cross-cultural assessment. Law and Human Behavior 40(1): 11–22. https://doi.org/10.1037/lhb0000153. Medline:26301708

United States Department of Commerce

2021. United States Census Bureau quick facts. United States Department of Commerce. https://www.census.gov/quickfacts/fact/table/US/PST045219.

Van Dongen, M.

2021. Hamilton police used force against a "disproportionate" number of Black residents last year, say critics. The Hamilton Spectator, 28 June. https://www.thespec.com/news/hamilton-region/2021/06/28/hamilton-police-use-of-force.html.

Walker, T. and C. Bennell

2021. Rates of use of force by police officers in Canada: A report prepared for the CACP use of force subcommittee. Ottawa, ON: Carleton University.

Watson, P. G. and L. Brantford

2018. Re-presenting transactions: Prosecuting a police-involved shooting with video evidence. The Annual Review of Interdisciplinary Justice Research 7: 96–117.

White, M. D.

2016. Transactional encounters, crisis-driven reform, and the potential for a national police deadly force database. Criminology and Public Policy 15(1): 223–35. https://doi.org/10.1111/1745-9133.12180

Williams, H. E., S. W. Bowman, and J. T. Jung

2019. The limitations of government databases for analyzing fatal officer-involved shootings in the United States. Criminal Justice Policy Review 30(2): 201–22. https://doi.org/10.1177/0887403416650927

Wisecarver, C. and M. Tucker

2007. The force science reactionary gap. Law and Order 55(9): 12–14.

Worrall, J. L., S. A. Bishopp, and W. Terrill

2020. The effect of suspect race on police officers' decisions to draw their weapons. Justice Quarterly. Advance online publication. https://doi.org/10.1080/07418825.2020.1760331

Wortley, S.

1999. A northern taboo: Research on race, crime, and criminal justice in Canada. Canadian Journal of Criminology 41(2): 261–74. https://doi.org/10.3138/cjcrim.41.2.261

Wortley, S.

2006. Police use of force in Ontario: An examination of data from the special investigation unit. University of Toronto. http://www.attorneygeneral.jus.gov.on.ca/inquiries/ipperwash/policy_part/projects/pdf/AfricanCanadianClinicIpperwashProject_SIUStudybyScotWort ley.pdf.

Wortley, S., A. Laniyonu, and E. Laming

2020. Use of force by the Toronto Police Service. Ontario Human Rights Commission. http://www3.ohrc.on.ca/sites/default/files/Use%20of%20force%20by%20the%20Toronto%20Police%20 Service%20Final%20report.pdf.

Wortley, S. and A. Owusu-Bempah

2009. Unequal before the law: Immigrant and racial minority perceptions of the Canadian criminal justice system. Journal of International Migration and Integration/Revue de

l'integration et de la migration internationale 10(4): 447-73. https://doi.org/10.1007/s12134-009-0108-x

Wortley, S. and A. Owusu-Bempah

2016. Crime and justice: The experiences of Black Canadians. In Diversity, Crime, and Justice in Canada, ed. B. Perry, 140–67. Oxford, UK: Oxford Press.

Wortley, S., A. Owusu-Bempah, E. Laming, and C. Henry

2021. Police use of force in Canada: A review of data, expert opinion, and the international research literature. Canadian Criminal Justice Association. https://www.ccja-acjp.ca/pub/en/wp-content/uploads/sites/8/2021/08/Full-Report-PUF.pdf.

Zimring, F. E.

2017. When police kill. Boston, MA: Harvard University Press.