

Identifying Dangerous Offenders: An Evaluation of the High Risk Offender Identification Program

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The Crime Reduction Research Program

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The CRRP is a research grant program administered and funded by the Province of British Columbia in collaboration with the Royal Canadian Mounted Police (RCMP). The CRRP is focused on investing in independent research to inform priority policing operations, policies, and programs related to public safety in British Columbia. In doing so, the CRRP also aims to foster greater collaboration between government, law enforcement, and academic experts in the field of policing and public safety.

Eligible research topics are identified on an annual basis by the BC Ministry of Public Safety & Solicitor General and the RCMP based on current and emerging provincial priorities. All grants are awarded on a merit basis by the CRRP Working Group.

Disclaimer

The statements, findings, and recommendations contained in this report have been reached independently by the authors of this report and do not necessarily reflect the views of the Province of British Columbia.

Executive Summary

Overview

Dangerous offenders represent a serious threat to public safety and are responsible for substantial costs to the justice system. Historically, courts and corrections identified dangerous offenders by using both quantitative (e.g., number of offenses) and qualitative (e.g., types of offenses) indicators of past offending. Canada has primarily focused on qualitative indicators of dangerousness, especially homicide offenses and sexual offenses. Canada's strategies for responding to dangerous offenders have come in a variety of forms, including s. 810 orders (i.e., peace bonds) and dangerous offender and long-term offender designations. These strategies emphasize containment (e.g., supervision, monitoring, curfew and other conditions) and lengthy custody sentences.

Problem Area

Canada's response strategies to dangerous offenders have had mixed success. When these strategies fail, it is often because dangerous offenders are only identified after the bulk of their offenses have been committed. Therefore, while they represented a serious threat to public safety in the past, they no longer do so at the time of the justice system response. In such cases, incarceration and containment strategies are an inefficient use of resources, do not improve public safety, and raise ethical concerns about the punishment of persons who do not pose a risk to the public. These strategies can also fail when subjective-decision making results in either mistaking a dangerous offender as lower-risk or identifying a lower-risk offender as dangerous. Solving these issues requires proactively identifying dangerous offenders in a systematic and evidence-based way.

Solution

Canada's dangerous offender policies are response-driven. However, focusing on how to respond to dangerous offenders before knowing what makes someone a dangerous offender is putting the cart before the horse. Instead of responding to dangerous offenders, British Columbia's High-Risk Offender Identification Program (HROIP) is designed to improve the process of identifying who is a dangerous offender by providing prosecution services with pertinent information about offenders believed to be dangerous. In effect, the HROIP is a way to more systematically screen for, and flag, dangerous offenders who should be the subject of targeted intervention/enforcement strategies. Therefore, the HROIP may help resolve issues with reactive policies and subjective decision-making that have characterized Canada's response to dangerous offenders. However, the ability of the HROIP to accurately identify dangerous offenders has not been subject to empirical evaluation.

This report evaluated the HROIP's accuracy in identifying dangerous offenders and whether criteria for dangerous offenders could be identified to allow for generalizations beyond offenders assigned to the HROIP. Five main themes were addressed:

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1. What are the characteristics of offenders assigned to the HROIP? Is there variability among this group?
 - This question addressed which specific offending features were most important to assignment to the HROIP.
 2. Do offenders assigned to the HROIP differ from other offenders?
 - This question addressed whether assignment to the HROIP was characterized by subjective decision-making that limited practitioners' ability to accurately identify dangerous offenders.
 3. Did offending post-HROIP assignment provide evidence that this was a dangerous group of offenders?
 - This question addressed whether assignment to the HROIP was too reactive (i.e., responding to offenders when they no longer remained a danger to the public).
 4. Are there specific criteria that should be used by practitioners to inform their assignment of offenders to the HROIP?
 - This question addressed which quantitative and qualitative indicators were most informative of dangerous offending.
 5. Can the criteria for dangerous offending be generalized beyond offenders assigned to the HROIP?
 - This question addressed the offending criteria informative of dangerous offenders more broadly and not just those who were assigned to the HROIP.

These themes were addressed using a subsample of participants from the Incarcerated Serious and Violent Young Offender Study (ISVYOS) who were assigned to the HROIP ($n = 72$). Quantitative (e.g., offense frequency) and qualitative (e.g., crime type) indicators of dangerousness identified for the HROIP group were cross-validated against a comparison group of male participants from the ISVYOS who were not assigned to the HROIP ($n = 1,214$).

Key Findings

In addressing the abovementioned five themes, the following key findings emerged:

1. Almost all individuals assigned to the HROIP were involved in at least one serious offense (i.e., homicide, sexual offense, firearm offense, domestic violence, or offense resulting in a federal custody sentence). However, some individuals assigned to the HROIP were more dangerous offenders than others.
 - Three distinct clusters of individuals assigned to the HROIP were identified. Cluster 2, which comprised 23.2% of the sample, tended to be involved in sex offenses and homicide offenses. However, homicide offenses and sex offenses, on their own, were poor indicators of risk for future offending. Overall, Cluster 2's pattern of offending was less frequent and less serious compared to Cluster 1 and

Cluster 3. Cluster 2 may be an example of subjective/reactive decision-making limiting the effectiveness of the HROIP.

2. The HROIP subsample was characterized by a significantly more serious offending history compared to the non-HROIP subsample. Violent convictions and months incarcerated were the two quantitative indicators most important for distinguishing between groups. Federal offenses and firearm offenses were the two qualitative indicators of dangerousness that were most important for distinguishing between groups. However, Cluster 2 looked more similar to the non-HROIP subsample than the other HROIP clusters, which reiterated that about 25% of the HROIP subsample may have been assigned to this program despite not being a high-risk to reoffend.
 - Individuals who use firearms for criminogenic purposes tend to have higher levels of criminal social capital (Morselli, 2002) and are gang involved (Roberto et al., 2018). Being associated with gun-carrying and discharging firearms is associated with gunshot victimization, not just for the individual, but for persons in their social network (Tracy et al., 2016). **Coordination with municipal gang task forces/gang squads may be especially important for closer monitoring and surveillance.**
3. The rate of offending post-HROIP assignment was significantly lower compared to pre HROIP assignment. This means that individuals were assigned to the HROIP after having already committed the bulk of their offenses. Almost all homicide offenses and sexual offenses committed by the HROIP subsample were perpetrated *prior* to assignment to the HROIP. Therefore, the HROIP was not useful for identifying individuals who were at-risk of perpetrating sex offenses/homicide offenses in the future (i.e., not useful for improving public safety against such offenses). The HROIP can be improved by identifying offenders *before* their involvement in serious offending has peaked. **The age of an offender has critical implications for their risk of continued offending.**
 - In the years post-HROIP assignment, offenders averaged a significantly greater number of convictions and greater number of violent convictions relative to the non-HROIP subsample. Thus, despite peaking in their level of offending prior to HROIP assignment, the HROIP subsample was still a dangerous group of offenders compared to other offender groups.
4. Early involvement in sexual offenses and homicide offenses perpetrated in adolescence or early adulthood did not help identify individuals who were associated with the most chronic and serious offending trajectory later in adulthood. Quantitative indicators of dangerous offending (e.g., number of convictions between ages 12–23, involvement in a greater variety of offenses between ages 12–23) were most informative of a serious pattern of future offending between ages 24–35.
 - Systematically relying on quantitative indicators of dangerousness, which historically have been overlooked in favor of certain qualitative indicators like

sex offenses and homicide offenses, may help improve the accuracy of HROIP assignment.

5. Analyses identified indicators of dangerous offending that could be generalized beyond the HROIP subsample. A seven-item inventory combined quantitative indicators of dangerous offending measured between ages 12–23 (e.g., number of convictions, offending versatility) and qualitative indicators of dangerous offending (e.g., firearm offenses, federal sentences). **This dangerous offending inventory was informative of more frequent, more serious, and more violent offending between ages 24–29. This inventory can be used to help with more proactive decision-making and reduce subjective decision-making.**

Conclusions and Next Steps

The HROIP showed some success in identifying dangerous offenders, but more systematic and proactive approaches to offender assignment may help improve the efficacy of this program. There are three main ways to improve the HROIP and the identification of dangerous offenders more broadly:

1. Avoid relying *solely* on a person's involvement in homicide offenses and sexual offenses to justify a person's assignment to the HROIP.
 - These offenses were not informative of future dangerousness/continued serious offending. However, homicide/sexual offenses, when present in the backgrounds of especially frequent or violent offenders, may be important to future serious offending.
2. It may be necessary to assign individuals to the HROIP earlier in the life course. Most serious/violent offenses occur between adolescence and the mid-20s. This does not mean that *all persons* only commit their most serious offenses during this time-frame.
 - Analyses should be performed using the entire population of individuals assigned to the HROIP. The findings in this report may not be generalizable to individuals who did not have contact with the justice system in adolescence.
3. There was substantial variation in patterns of offending among the HROIP subsample. This resulted in identifying some individuals as dangerous offenders despite not differing from the non-HROIP comparison group.
 - This can be rectified by relying on quantitative indicators of dangerousness when assigning individuals to the HROIP (e.g., frequency of past offending, criminal versatility). Qualitative indicators, especially federal custody sentences and firearm offenses, also appear to be important.

One of the ways to address these next steps is to use the dangerous offending inventory (see Table 9) as a screening tool for assigning offenders to the HROIP. This tool was validated against the non-HROIP subsample and therefore can also be used as part of other intervention strategies like duty to warn and gang exit programs

that are seeking to identify individuals at-risk of dangerous offending. The age of the offender should be accounted for when using this inventory or in any other decision-making process. Because this inventory was developed on a sample of offenders within BC, it may have greater validity than other tools that were not developed with the BC population in mind. Table 10 of this report provides recommendations for how to implement this inventory and other policy strategies in ways that are proactive, ethical, useful, and synergistic.

Acronyms and Glossary

AUD: Australian Dollars

CCC: Criminal Code of Canada

CHROME: The Coordinated High-Risk Offender Management Project developed in BC to provide a therapeutic approach and more intensive supervision and monitoring of offenders placed on a s. 810 order.

Chronic Offender: Describes individuals who meet some pre-defined threshold for frequent offending. Sometimes based on the minimum proportion of a sample needed to account for at least 50% of all crime within the sample.

Containment Approach: Strategy of using surveillance and monitoring to hold offenders accountable for actions and detect violations of court orders.

CORNET: Corrections Network

Criminal Career: Describes a person's pattern of offending from first to last offense. Is different from a career criminal or someone whose primary means of income is achieved through crime.

CSC: Correctional Service of Canada

Dangerous Offender: Broad term referring to an individual perceived to represent a risk to public safety, usually due to having a history of involvement in chronic offenses, serious offenses, or both. Distinguished from the specific status of a "dangerous offender designation".

Dangerous Offender Designation: Specific term referring to an offender who has been defined as dangerous based on meeting specific legal criteria stipulated in section ss. 752–753 of the Criminal Code of Canada. Distinguished from a "dangerous offender" more broadly.

HROIP: High-Risk Offender Identification Project

HRRAC: High-Risk Recognizance Advisory Committee

ISVYOS: Incarcerated Serious and Violent Young Offender Study

K-File: A domestic violent offense perpetrated against a family member or intimate partner.

Long-Term Offender Designation: Specific term referring to an offender who has been defined as a long-term offender based on meeting specific legal criteria stipulated in s. 752.1(1) and s. 753.1(1) of the Criminal Code of Canada. The designation has specific legal implications and is not just a description of the nature of a person's pattern of offending.

M: Mean

MCFD: Ministry of Children and Family Development

***n*:** Denotes the sample size.

Primary Designated Offense: A list of offenses within the Criminal Code of Canada (see s. 752) considered especially serious because of their violent nature, targeting of vulnerable victims, or use of a weapon.

Qualitative Criminal History Measures: Refers to the *type* of offenses an individual perpetrated (e.g., homicide offense, sexual offense).

Quantitative Criminal History Measures: Refers to the *amount* of offending or other countable characteristics, such as number of prior convictions or age of onset of offending.

Relapse Prevention Model: Combines a therapeutic approach with an intensive monitoring and community supervision approach.

s. 810 Order: A type of preventative measure in Canada reserved for individuals believed to be at risk of perpetrating a sex offense against a person who was age 14 or younger (s. 810.1) or committing a serious interpersonal violence offense (s. 810.2).

***SD*:** Standard Deviation

Serious Personal Injury Offense: For the purpose of a dangerous offender designation, a serious personal injury offense is defined as either (1) an offense that carries a sentence of up to 10 years in custody that involved the perpetration of violence or conduct against a person in a way that endangers their life, safety, or psychological wellbeing, or (2) sexual assault or attempted sexual assault.

USD: United States Dollars

Introduction

For most offenders, their criminal behavior is confined to a short period of adolescence/early adulthood (see Farrington, 1986) and involves the perpetration of only relatively non-serious offenses (Moffitt, 1993). Per the risk-need-responsivity model, these types of offenders often require little to no intervention. In fact, interventions for individuals who are low-risk to begin with can do more harm than good (Bonta & Andrews, 2007). A much smaller group of offenders is involved in chronic and/or serious offending. This group often requires formal justice system intervention. These individuals represent a threat to public safety and a substantial financial cost to various sectors (corrections, public health, child welfare, etc.). Yet, such individuals are poorly understood because criminologists have tended to focus on community-based samples (see McCuish et al., 2021) and thus have failed to provide practitioners and policymakers with important, evidence-based information regarding how to effectively intervene with dangerous offenders. It is therefore not surprising that different policies, such as “three strikes” laws, have been, not just ineffective, but detrimental, to the justice system’s response to dangerous offenders (Meehan, 2000; Willis, 2007). In sum, despite being a group perhaps most in need of intervention, little is known about dangerous offenders and how to respond to them.

The High-Risk Offender Identification Program (HROIP) used in British Columbia is a screening program designed to flag individuals who appear to be dangerous offenders where more intensive treatment, intervention, or enforcement/punishment may be warranted. Thus, the HROIP is aimed at improving the identification of dangerous offenders considered for justice system response strategies and is not itself a specific treatment or intervention strategy (Public Safety Canada, 2018). The purpose of the current report was to evaluate the effectiveness of the HROIP in its ability to (a) identify dangerous offenders, (b) avoid including non-dangerous offenders, and (c) identify dangerous offenders at a point in their offending cycle where there is a substantial opportunity to reduce future offending (i.e., as opposed to at the end of their offending cycle when they no longer pose a risk). This report answered questions about this program, including: Who are the offenders assigned to the HROIP? Do they differ from other offenders, did offending patterns change after assignment to the HROIP? Are there other criteria that should be considered when evaluating who should be assigned to the HROIP? Additionally, because those who are assigned to the HROIP represent only a minority of all dangerous offenders, this report also examined different quantitative and qualitative indicators of offending that could be used to help identify which offenders continue to engage in a pattern of dangerous offending beyond their early twenties.

Organization of the Report

This report addresses six major themes. **First**, it is necessary to establish the usefulness of such policies intervention and prevention programs targeting dangerous offenders. One

of the ways to do so is by illustrating the financial costs associated with this group¹. The first theme establishes the costs associated with high-risk offenders to illustrate why developing successful strategies for detection and intervention is important. **Second**, this report past definitions of dangerous offending, which have been primarily restricted to defining dangerousness according to *either* chronic offending (quantitative indicator of dangerousness) or serious offending (qualitative indicator of dangerousness). This report calls for a definition that considers the *intersection* of both quantitative and qualitative indicators. **Third**, this report described and reviewed the efficacy of strategies currently used in BC to respond to dangerous offenders. **Fourth**, described the Incarcerated Serious and Violent Young Offender Study (ISVYOS). The ISVYOS included 72 individuals assigned to the HROIP. **Fifth**, ISVYOS data were used to answer four questions regarding the effectiveness of the HROIP and one question regarding the identification of dangerous offenders more broadly: (1) who are the offenders assigned to the HROIP, (2) are offenders assigned to the HROIP different from other high-risk offenders, (3) were individuals assigned to the HROIP early enough in their crime cycle so as to allow for the prevention of future chronic and serious offending, (4) can the HROIP be improved through more accurate identification of dangerous offenders, and (5) are there indicators of dangerous offending that can be generalized to offenders beyond those who were assigned to the HROIP? **Sixth**, the report's main findings were summarized, and the implications and next steps were described.

The Value of Intervention and Prevent Strategies

Criminological research and associated policy strategies have struggled to develop effective responses to dangerous offenders (Auerhahn, 1999). This is in part because criminologists have a poor understanding of the risk factors that distinguish involvement in dangerous offending from less serious offending (Laub & Sampson, 2003; McCuish et al., 2014). Despite having a poor understanding of the question "*who becomes the dangerous offender?*", various strategies have been implemented to target this group. Such strategies have persisted because it is clear that dangerous offenders pose a serious threat to public safety. The ongoing challenge is to identify such individuals *before* they commit serious offenses as opposed to reacting to such individuals once serious offenses already have been perpetrated. The media in BC has documented instances of serious violence occurring in public settings against innocent bystanders. Examples of such incidents include the Surrey Six Shooting (CBC News, 2013) and the death of Alfred Wong (Little, 2019). Some of these incidents have called into question the functioning of the justice system. For example, Serena Vermeersch was murdered by an individual released from prison despite warnings from police and corrections that they were a high-risk to reoffend (The Canadian Press, 2015). Others questioned why the perpetrator of this

¹ The value of intervention is not just in terms of savings to taxpayers. For example, fear of crime has an array of negative social and health implications (Jackson & Stafford, 2009) and therefore successful intervention programs that reduce crime and associated public concern can help improve social well-being.

offense was not the subject of a dangerous offender designation (Renouf & Lyle, 2017). This would be an example of the justice system's failure to identify and respond appropriately to dangerous offenders who threaten community safety.

Effective intervention and prevention strategies can also reduce the costs associated with dangerous offenders (see Table 1 for a summary). In a study of young offenders from Toronto, Day and Koegl (2019) reported that the cost associated with chronic offending was more than \$16,000,000 CAD per person. This included costs to victims, costs to corrections (e.g., housing of inmates), and other justice system costs, such as financing police investigations and court costs. In Australia, youth involved in chronic offending that persisted into adulthood cost police and correctional services approximately \$58,000 AUD. For police alone, investigating serious offenses like homicide cost approximately \$140,000 AUD per case (Allard et al., 2020). Studies in England estimated that a single chronic offender would cost each United Kingdom citizen approximately \$1,000 USD over that citizen's lifetime (Piquero et al., 2013). Studies in the United States reported that the average chronic offender incurred costs totaling approximately \$2,500,000 USD (Cohen & Piquero, 2009; Cohen et al., 2010). Overall, although the costs of chronic and serious offending vary depending on the jurisdiction the types of costs considered (e.g., police, corrections, courts, public health, social welfare), the financial incentive associated with the prevention of a single chronic offender² is estimated to be in the millions of dollars (Cohen & Piquero, 2009).

Table 1. The costs of chronic offending across different studies and locations. Note: Average cost in Allard et al. (2020) based on average after combining Indigenous and non-Indigenous estimates.

Study	Location	Definition of Chronic Offending	Measurement Period	Factors in Cost Assessment	Cost of Chronic Offending per Person
Cohen & Piquero (2009)	Philadelphia, Pennsylvania	The 6% of boys responsible for 50+% of all crime (averaged 68 total arrests)	Ages 8–26	Costs of detected and undetected crimes, victim costs, justice system costs, lost opportunity costs	\$2,600,000 (USD)
Piquero et al. (2013)	London, England	Conviction Trajectories. Chronic offending trajectory averaged 21.13 convictions	Ages 10–50	Security expenditures and insurance administration, consequences of crime, and response to crime	\$95,241 (USD)

² This can also be considered the prevention of serious offending given that chronic offenders account for the majority of serious offenses as well (e.g., Kempf-Leonard et al., 2001).

Study	Location	Definition of Chronic Offending	Measurement Period	Factors in Cost Assessment	Cost of Chronic Offending per Person
Allard et al. 2020	Queensland, Australia	Arrest trajectories. Chronic trajectory averaged approximately 75 arrests	Ages 10–31	Justice system costs, social and economic costs	\$118,375 (AUD)
Day & Koegl (2019)	Toronto, Canada	Conviction Trajectories. Chronic trajectory averaged 28.47 convictions.	Ages 12–26	Victim costs, correctional costs, procedural justice costs, and costs of undetected crimes	\$16,954,604 (CAD)

Section Summary

Although the benefits of preventing dangerous offending are clear (e.g., the benefits of rehabilitation, improvements to public safety, millions of dollars in costs to the justice system and other agencies; see Day & Koegl, 2019). Unfortunately, there are also widespread challenges when it comes to the accurate identification of dangerous offenders, including the tendency to overpredict who is considered a dangerous offender³ (Black, 2011). Some have questioned the ethics of certain practices, such as preventative detention, that were designed to respond to dangerous offenders (Black, 2011). The next section reviews traditional approaches to defining and responding to dangerous offenders.

Dangerous Offenders: Definitions and US-Based Responses

The criteria for defining a dangerous offender have been primarily based on having a history of either chronic or serious offending. Chronic offending, sometimes described as prolific offending or habitual offending, has been defined as the small minority of all persons who are responsible for the majority of all crime. Wolfgang et al. (1972) identified that 6% of all persons in the community were responsible for more than 50% of all police arrests. This group of chronic offenders was also responsible for the majority of serious offenses, including murder (71% of all such offenses), robbery (82% of all such offenses), and rape (73% of all such offenses). In other words, chronic offending was an important indicator of risk for serious offending and thus scholars regularly defined a person's level of dangerousness based on their past frequency of offending. If the majority of all crime,

³ This refers to false positives in which an individual is wrongly assessed to be a dangerous offender.

including serious crime, is perpetrated by a small minority of all persons, then substantial changes to crime rates and justice system costs can be accomplished by reducing the offending among this small group.

One limitation of Wolfgang et al.'s (1972) definition of chronic offending is that it is a static measure of dangerousness. This means that once an individual has reached a certain offense threshold, then they are forever considered a chronic/dangerous offender. This ignores the reality that some offenders change and may no longer represent a danger to the public (McCuish et al., 2021). This static approach is not informative of whether such individuals are at-risk of continuing this pattern of offending. Responses to chronic offenders have primarily focused on more intensive surveillance and monitoring and selective incapacitation (Greenwood & Abrahamse, 1982). Selective incapacitation policies justify the use of incarceration or the use of longer/more restrictive sanctions on the basis that these responses prevent an individual from having opportunities for continued offending (Greenwood & Abrahamse, 1982; Jones et al., 2001). Thus, it is premised on the idea that an individual should be punished, not just for their current offense, but for their perceived risk of future offenses.

Despite their popularity in the United States, selective incapacitation is a relatively ineffective approach to reducing crime rates (Barnett & Lofaso, 1985; Blumstein & Moitra, 1980). The efficacy of selective incapacitation is associated with difficulties (a) identifying who is or is not a dangerous offender and (b) identifying dangerous offenders *before* they have committed (or will continue to commit) serious offenses. The latter refers to issues with policies being too reactive and therefore identifying persons for incarceration/surveillance only *after* they no longer pose a high risk for continued frequent offending (Auerhahn, 1999). These policies routinely fail because they do not account for one of the few 'facts' of criminological research; specifically, the observation that offending declines with age. Even for chronic offenders, their risk of future offending markedly declines as they get older (Farrington, 1986; McCuish et al., 2021). This means that policies that identify dangerous offenders only once they are in the later stages of adulthood have possibly waited too long (i.e., were reactive rather than proactive).

Three strikes policies are an example of an unsuccessful response to dangerous offenders. Three strikes policies were both too reactive and too inclusive. Most individuals involved in three offenses, even three serious offenses, were not actually dangerous offenders in the sense that they rarely continued their involvement in serious offenses. Thus, this policy reacted to these offenders only once their criminal career was essentially over, meaning that the policy failed to prevent future offenses. This strategy was so overinclusive (i.e., three offenses was a low threshold to define dangerous offenders) that California prisons were required to release these offenders prior to the end of their sentence to reduce overcrowding. Some speculated that this policy was so inefficient that it contributed to an increase in the crime rate in California (Chen, 2008). Overall, selective incapacitation strategies have received strong criticism (Auerhahn, 1999).

One way to avoid the pitfalls of three strikes policies and other policies that define dangerousness solely based on quantitative indicators of offending (i.e., a person's frequency of past offending) is to also consider the qualitative nature of a person's offenses. For example, one individual may perpetrate five shoplifting offenses. Another may perpetrate five assaults. Both might be considered chronic offenders, but this process ignores differences in the severity of these two offending patterns. While chronic offending can be an important indicator of serious offending (Kempf et al., 2001), not all chronic offenders are serious offenders and vice-versa (McCuish, 2020).

Canada's legal system has attempted to account for qualitative indicators of dangerous offending by developing nominal categories to describe the severity of a particular offense. Sometimes these categories are simplistic, such as "sexual offense" or "violent offense". These terms are simplistic because (a) there is wide variability in the severity of sexual/violent offenses and (b) some non-violent offenses can be more serious than some violent offenses. The Criminal Code of Canada (CCC) addressed this simplicity in s. 752 by creating a list of offenses, referred to as "designated offenses" that are considered especially serious because of their violent nature, targeting of vulnerable victims, or use of weapons. S. 752 also further defines certain offenses as "serious personal injury offenses" if they are indictable offenses that involve the use of violence or endanger another person. The definitions of designated offenses and serious personal injury offenses as qualitative indicators of an offender's level of dangerousness have been heavily factored into BC's policy responses. However, BC has neglected quantitative indicators of dangerousness.

Effective policies need to be proactive, ethical, useful, and synergistic. Proactive means that offenders are not targeted only once they have committed a substantial number of crimes and, per the age-crime curve (Farrington, 1986), are no longer at a substantial risk for future offending. However, preventative detention, selective incapacitation, and other forms of punishment based on predicting what someone will do may raise ethical concerns, namely, the punishment of persons who have not actually committed an offense and the overinclusion of individuals considered dangerous offenders (Black, 2011; Jones et al., 2001). For example, three-strikes laws were overly inclusive and incarcerated individuals who were not at risk of a continued pattern of high-rate offending, thus resulting in a policy that was ineffective, expensive, and overly punitive (Meehan, 2000; Willis, 2007). A useful policy is one that can be carried out in practice and does not rely on data unavailable to practitioners. A synergistic approach recognizes that different agencies have different mandates. For example, the Corrections and Conditional Release Act specifies that corrections facilities are responsible for promoting rehabilitation through evidence-based programs that assist with community re-entry (Correctional Service of Canada, 2008; Reid, 2019). Accordingly, it may not be possible to implement a particular policy if the appropriate empirical research has not yet been conducted or if the policy conflicts with rehabilitative aims.

Section Summary

There are two major approaches to identifying dangerous offenders as priority targets for crime prevention and intervention purposes. The first is based on defining chronic offending as a quantitative indicator of offending severity/dangerousness (Carrington et al., 2005; Wolfgang et al., 1972). The second is based on crime-types (e.g., sexual offense, indictable offense) as a qualitative indicator of offending severity/dangerousness (e.g., Bonta et al., 1998; Hassan, 2011). Both approaches are often premised on a wait-and-see strategy. That is, a dangerous offender is defined based on what they have done, and consideration is not given to what they *will* do. As such, these policies are not necessarily well-informed when it comes to improving public safety because they often require waiting until an offender has already committed the majority of their offenses. On the other hand, policies that incarcerate individuals based on forecasting what they will do in the future as opposed to their current/past offending history have been critiqued on ethical grounds and prohibited in certain jurisdictions (Black, 2011). Empirical analyses are needed to inspect the relative contribution of quantitative indicators of dangerousness (e.g., crime frequency) and qualitative indicators of dangerousness (e.g., offense type). A policy that considers both of these indicators should also endeavor to meet the following criteria:

1. **Proactive:** the policy is able to prevent/intervene with offenders before the period at which they are at risk of dangerous offending has passed.
2. **Ethical:** being proactive cannot result in, for example, incarcerating persons on the basis of crimes that they are predicted to commit in the future.
3. **Useful:** recognizing that practitioners do not have access to unlimited data and work under time constraints that make more complex policies and practices impractical.
4. **Synergistic:** There is a history in Canada of legislation being ineffective when new policies conflict with mandates and objectives of the agencies responsible for implementing them⁴.

BC has attempted to balance these principles in at least two of its strategies for responding to dangerous offenders.

Strategies Targeting Dangerous Offenders in British Columbia

BC has various strategies for responding to dangerous offenders, including s. 810 orders, dangerous offender designations⁵, and long-term offender designations. Section 810 of

⁴ Canada's implementation of the *Young Offenders Act* (YOA) is an example of this. While the YOA was intended to emphasize diversion, this did not work in practice because of a lack of guidelines provided to police and judges.

⁵ A primary designated offense is a list of offenses within the Criminal Code of Canada (see s. 752) considered especially serious because of their violent nature, targeting of vulnerable victims, or use of a weapon.

the CCC specifies that courts can institute supervision and monitoring conditions designed to remove the threat that an individual poses of committing a serious offense (Public Safety Canada, 2018). Specifically, s. 810.1 responds to individuals at-risk of committing a sex crime against a person who is age 14 or younger whereas s. 810.2 responds to individuals at-risk of committing a serious personal injury offense, usually a sexual assault (Lussier et al., 2014). Section 810 orders, sometimes referred to as peace bonds, are typically initiated by police officers upon recommendation from correctional authorities. These orders require “reasonable grounds” that an individual will commit a future crime; they do not require evidence of past offending. Thus, s. 810 is a proactive intervention strategy. It also attempts to avoid being overinclusive by applying only to risk for involvement in specific types of crime deemed by the CCC to be especially serious (i.e., sex offenses).

Section 810 orders rely primarily on what a person is *expected* to do, rather than what they have done in the past, and thus may not be synergistic with the policies and practices of other agencies. For example, decisions to pursue s. 810 orders are based on unstructured professional judgement decisions rather than relying on empirical research. Doing so contrasts with corrections agencies that require evidence-based practices and the use of actuarial or structured professional judgement tools rather than professional judgement alone (Hart, 2016).

Dangerous offender designations (see Bonta et al., 1998) and long-term offender designations (see Hassan, 2011) are discussed jointly because they share similar criterion⁶. Dangerous offender and long-term offender designations are meant to protect the public by preventing violence. Dangerous offender designations are punitive orders that result in incarceration for an indefinite period of time whereas s. 810 orders are preventative orders that do not result in incarceration (Public Safety Canada, 2018). Although dangerous offender designations are designed to prevent future violence, unlike s. 810 orders, they cannot be instituted based solely on the risk of what they will do (Dawson et al., 2014). Section 752 requires an individual to have been convicted of and awaiting sentencing for a serious personal injury offense, which is defined as either (1) an offense that involves the perpetration of violence or conduct that endangers a person and carries a custody sentence of up to 10 years or (2) sexual assault or attempted sexual assault. If this requirement is met, and if (a) Crown counsel can show that it would be appropriate to sentence the offender to two years or more for the index offense and (b) the index offense represents an offender’s third conviction for a primary designated offense, then they are presumed to be a dangerous offender (Public Safety Canada, 2018).

If the criteria in s. 752 is satisfied, but if the index offense is *not* an offender’s third conviction for a primary designated offense, then the onus is on Crown counsel to show,

⁶ In this report, the term “dangerous offender” is reserved for a broader description of offenders who represent a risk to public safety because of their likelihood of recidivism, whereas the term “dangerous offender order” is reserved for a specific description of an offender who meets Canada’s legal criteria for designation as a dangerous offender.

per s. 753(1) of the CCC, that the offender has either (a) in the case of a violent offense, “demonstrated repetitive, persistent and/or brutal behaviour that is evidence that the offender is a threat to the lives, safety or physical or mental well-being of others” (Public Safety Canada, 2018, p. 7) or (b) in the case of a sexual offense, “failed to control his sexual impulses and is likely to cause injury and pain to others as a result” (Public Safety Canada, 2018, p. 7). Finally, prosecution must establish that the offender did not respond to treatment or refused to participate in treatment. If this requirement is not established, then the offender will be given a long-term offender designation instead. The long-term offender designation means that the offender receives a sentence of at least two years and then is subject to intensive monitoring and supervision in the community for a period of up to 10 years (Public Safety Canada, 2018). Most individuals who received a dangerous offender designation were given an indeterminate sentence (Public Safety Canada, 2014).

In terms of strengths, unlike three strikes policies, these designations recognize the importance of both quantitative (i.e., chronic offending) and qualitative (i.e., the harmfulness caused serious personal injury or psychological trauma) indicators of dangerousness. Dangerous offender and long-term offender designations have greater oversight compared to s. 810 orders as they require a formal assessment and actuarial or structured professional judgement risk assessment completed by a forensic psychologist (Almond et al., 2021). Dangerous offender designations and long-term offender designations may therefore be more reliable because they require input from a practitioner specifically trained in the assessment of risk for reoffending. That said, partisan allegiance can impact the reliability of dangerous offender assessments. Forensic psychologists who are retained by prosecution tend to produce a higher risk assessment rating compared to forensic psychologists who are retained by defense counsel (see Blais, 2015).

In terms of weaknesses, in practice, dangerous offender designations and long-term offender designations typically fail to fulfill the proactive criterion of strong policy. This is because offenders subjected to dangerous offender and long-term offender designations are typically older than age 30 (Bonta et al., 1998; Hassan, 2011), which is passed the age at which offending peaks, even for chronic offenders (e.g., Farrington, 1989). Accordingly, it is possible that such persons are being incarcerated after they no longer represent a high risk to continue offending. A person who is 45 years old who scores ‘high’ on a particular risk assessment tool might actually be at a lower risk to reoffend compared to a person who is 21 years old who scores ‘moderate’ on a particular risk assessment tool (Lussier & Healey, 2009). As another limitation, dangerous offender designations are characterized by the same issue associated with three strikes laws in the United States. Specifically, no empirical evidence was presented to justify why three convictions for a primary designated offense represented a quantitative indicator of dangerousness (e.g., why not four or five convictions?).

Finally, concerns have been raised regarding subjectivity and a lack of structure in the process of dangerous offender designations, which raises ethical and synergistic concerns. Indigenous Persons are overrepresented among those with a dangerous

offender designation (Public Safety Canada, 2018) and long-term offenders (see Hassan, 2011)⁷. This may be because the types of risk assessment tools used in dangerous offender designation assessments (see Blais & Bonta, 2014) have not been demonstrated to be reliable for Indigenous Persons (Hart, 2016). In BC, specific strategies have been adopted to move away from relying on incarceration as a response to dangerous offenders.

The Coordinated High-Risk Offenders Management Project

Close supervision and monitoring in the community by agents of the justice system is an alternative to incarcerating dangerous offenders. BC developed the Coordinated High-Risk Offender Management (CHROME) project as a pilot project responding to a subsample of persons who were subjected to a s. 810 order ($n = 269$). The CHROME project built upon s. 810 orders by using a relapse prevention model (RPM) approach. The RPM adds a therapeutic approach on top of intensive monitoring and community supervision. The CHROME project resembled a containment approach response to sex offending, which prioritizes victim safety and community protection through multiagency collaborations and regular surveillance (English, 1998). The CHROME project involved monitoring compliance with conditions that included restricted access to certain locations, bans on the use of alcohol and weapons, surrendering their passport, and random checks on computers/hard drives (Lussier et al., 2014). Violating these conditions would result in new criminal charges and a custody sentence.

Evaluations of the CHROME project addressed two questions (see Lussier et al., 2014). First, were persons subjected to a s. 810 order more likely to recidivate compared to the general offender population? Second, were those who received the CHROME project treatment less likely to recidivate compared to persons with a s. 810 order?

Lussier et al. (2014) found that among the 269 men who were subjected to a s. 810 order, only (3.0%) sexually recidivated. It could be argued that the use of conditions to restrict the behavior of these men ensured that this group's rate of sexual recidivism was lower compared to what is typically found in most studies of sexual recidivism (Lussier et al., 2020). However, another possibility is that sexual recidivism risk for this sample was low to begin with because the decision-making process for assigning individuals to a s. 810 order was flawed. Lussier et al. (2014) found that those with a s. 810 order were older than most persons in the justice system and therefore passed the age at which they represented a danger to the public. **The CHROME project highlights a missing element in the evaluation of strategies for responding to dangerous offenders: objective measures of underlying levels of risk.** It is not enough to measure re-offending; what is also

⁷ This overrepresentation is even greater compared to the overrepresentation of Indigenous Persons in the justice system more generally. For example, as of 2011, Indigenous Persons accounted for 26.4% of those given a dangerous offender designation but only 18.5% of the federal offender population.

needed is a measure of a person's level of risk for reoffending to evaluate whether a person did not recidivate *despite* their higher-level of risk.

Lussier et al. (2014) also found that when individuals given a s. 810 order recidivated, a violation of the conditions of their order (e.g., being in a bar, traveling without permission) was the most likely reoffense. Thus, s. 810 orders may have created a net-widening effect. Placing individuals under more restrictive conditions and monitoring simply increased the likelihood of being detected for violating their conditions. Thus, like three strikes policies, s. 810 orders might influence an increase in the crime rate, especially if individuals assigned to these orders are a low risk to reoffend.

Lussier et al. (2014) also found a lack of evidence that the RPM approach was successful in reducing recidivism. Instead, Lussier et al. (2014) found that a person's age was more important to recidivism than the type of treatment received. Those who were older were less likely to recidivate and took a longer time to recidivism. The age-crime relationship once again interrupts the potential effectiveness of intervention policies. Thus, s. 810 orders and the CHROME project may be too reactive in their approach to responding to dangerous offenders.

Table 2 summarizes the nature of, and challenges with, s. 810 orders, the CHROME project, and other policy responses for dangerous offenders. These approaches can be improved by making more informed decisions regarding which individuals should be included in these policy/intervention strategies. The current report is designed to help make these more informed decisions.

Table 2. BC's intervention responses to dangerous offenders.

Approach	Scope	Strategy	Evaluation
S. 810 Orders	S. 810.1: Individuals at-risk of committing a sex crime against a person 14 years-old and younger. S. 810.2: Individuals at-risk of committing a serious personal injury offense.	Incarcerate individuals based on "reasonable grounds" of their likelihood of committing a future crime. Preventative rather than punitive ¹ .	Proactive (in theory) because it incarcerates individuals based on perceived risk of future offending. Individuals given such orders are older and risk of reoffending may have passed. Decision-making process is vague. Police, rather than risk assessors, primarily responsible for the process ¹ .
The CHROME Project	Persons subjected to a s. 810 order who received closer surveillance and monitoring along with treatment.	Relapse prevention model combining therapeutic approach with an intensive monitoring and community supervision approach (e.g., multiagency collaborations that include regular surveillance to hold offenders accountable).	Individuals assigned to the project were not less likely to recidivate compared to other individuals on a s. 810 order. Competing interests (i.e., treatment but also breach). Individuals assigned to the project were <i>more</i> likely to recidivate compared to the control group when it came to administrative offenses ² .
Dangerous Offender Designation	Convicted of a serious violent offense, poses a risk for continuing such behavior, and has not responded to treatment or refused treatment.	Indeterminate imprisonment/long-term supervision order to prevent future offending. Punitive (and preventative) ¹ . Cannot be applied to individuals who have not committed a serious personal injury offense.	Legislation requires an actuarial or structured professional judgement approach to reduce clinical bias ¹ . Overrepresentation of Indigenous Persons, older persons, and persons involved in sex offenses ³ . Failure to consider Gladue factors ⁴ . Arbitrariness of 'three strikes' for primary designated offenses.
Long-Term Offender Designation	Convicted of a serious violent offense and poses a risk for continuing such behavior.	Allows for a maximum of ten years' supervision after the offender's release. Preventative rather than punitive ¹ .	Legislation requires an actuarial or structured professional judgement approach to reduce clinical bias ¹ . Overrepresentation of Indigenous Persons, older persons ⁵ , and persons involved in sex offenses. Failure to consider Gladue factors ⁴ .

¹ Public Safety Canada (2018); ² Lussier et al. (2014); ³ Bonta et al. (1998); ⁴ Jackson (2015); ⁵ Hassan (2011)

Section Summary

This section described four ways of responding to dangerous offenders: (1) s. 810 orders, (2) dangerous offender designations, (3) long-term offender designations, and (4) assignment to the CHROME project (see Table 2). There are different ways to distinguish the qualities of responses to dangerous offenders, including (1) proactive, (2) ethical, (3) useful, and (4) synergistic. Policies in Canada have struggled the proactive aspect of responses to dangerous offenders, especially given the need to balance this with ethical practices. The main issue is that these response strategies respond to dangerous offenders when they are at an age where their risk for continued offending is much lower compared to earlier stages of the life course. Too much attention is given to a person's past behavior and not enough attention has been given to whether this past behavior is likely to continue.

Another limitation of these policies is that they are missing a crucial first step in responding to dangerous offenders, which requires being able to distinguish who is, and who is not, a dangerous offender. What are the criteria for designating someone as a dangerous offender, and do these criteria have empirical validity? So far, these different responses have included an overrepresentation of Indigenous Persons, which may lead to continued scrutiny of justice system for failing to evaluate whether their risk assessment tools are reliable and valid for non-White persons (see Hart, 2016). Sex offenders are also overrepresented in these responses. In fact, s. 810 orders are essentially reserved for responses to sex offending. Yet, although dangerous offenders are very often sex offenders, sex offenders are also very rarely dangerous offenders. For most sex offenders, the risk of sexual recidivism is typically low. However, this risk is typically overestimated by practitioners, which impacts inaccurate decisions about dangerous offenders (Lussier et al., 2020).

While a lot of debate has been given to the types of responses to dangerous offenders and their legality, this debate skips the first step in developing responses to dangerous offenders, which involves identifying which characteristics are informative of a person's level of dangerousness.

Stepping Back: The High-Risk Offenders Identification Program

Past approaches to responding to dangerous offenders in BC have been primarily used to respond to perpetrators of sex offenses and have produced only mixed results regarding their effectiveness (Lussier et al., 2010, 2014). Part of the concern relates to the subjectivity by which individuals are deemed by justice systems to represent some level of dangerousness (Blais, 2014; Blais & Bonta, 2014; Dawson et al., 2014). The lack of effective responses to dangerous offenders is problematic because: (1) the public remains poorly protected against harm (Jackson & Stafford, 2009), (2) ineffective responses imply that the justice system will continue to incur substantial costs resulting from dangerous offenders (e.g., Day & Koegl, 2019), (3) the public may lose faith in the justice system, and (4) policies

may contribute to the marginalization of specific groups. Thinking about the best way to respond to dangerousness before knowing what makes someone a danger to reoffend puts the cart before the horse.

The High-Risk Offenders Identification Program (HROIP) was initiated in BC by Ronald Hurt to take a step back from the assumption that police and prosecution services were already well-aware of which offenders constituted a danger to the public (Prosecution Service, 2019; Public Safety Canada, 2018). The HROIP was designed to improve the process of gathering information in the consideration of (a) whether someone was a dangerous offender and (b) the type of response that should be initiated (i.e., s. 810 order, dangerous offender designation, long-term offender designation; see Public Safety Canada, 2018). Thus, the HROIP may be helpful in addressing, for example, concerns that Crown counsel's process of determining when to initiate the process of an assessment for a dangerous offender designation is subjective or based on criteria that are irrelevant to risk posed for future offending (Bonta et al., 1996, 1998). In BC, approximately 2,000 offenders are included in the HROIP (Prosecution Service, 2019).

The HROIP involves a coordinated effort from various justice system practitioners to share information with Crown Counsel about offenders believed to be at a high risk of reoffending violently or sexually (Prosecution Service, 2019). A swath of information is considered, including police reports, court transcripts, correctional records, and mental health assessments. This information is used to assist Crown Counsel in deciding whether to pursue, for example, a s. 810 order, a dangerous offender designation, or a long-term offender designation. The HROIP is also part of the High-Risk Recognizance Advisory Committee (HRRAC), which is responsible for preparing case reviews for offenders referred by Correctional Service of Canada (CSC). The case review incorporates various information, including "CSC progress records, reports to crown counsel, pre-sentence reports, forensic assessments, psychiatric and psychological reports, community corrections files, and concerns gathered from previous victims" (Public Safety Canada, 2018, p. 80). This committee makes recommendations about the appropriateness of a s. 810 order.

Overall, the purpose of the HROIP is to help make informed decisions about who is or is not a dangerous offender. This may help address ongoing limitations of various danger offender policies that have struggled to reduce reoffending rates (Bonta et al., 1998; Hassan, 2011; Lussier et al., 2014). The HROIP is not a specific type of treatment/intervention program and therefore should be evaluated based on the efficacy of its screening process as opposed to whether it reduces reoffending. Who are the individuals assigned to the HROIP? Do they constitute a heightened level of dangerousness compared to other offenders?

The HROIP might be limited by its reliance on unstructured professional judgement, which means that deciding whether someone should be assigned to the HROIP is not based on pre-specified criteria. This approach has been scrutinized for lacking reliability and validity and resulting in inaccurate decision-making (e.g., Hart et al., 2015; Lussier et al., 2020).

The purpose of this report is to answer questions regarding the efficacy of the HROIP in identifying dangerous offenders. **It is important to keep in mind that the HROIP is not a specific intervention strategy meant to directly *reduce* offending.** Those assigned to the HROIP did not receive a uniformed intervention/treatment/suppression response. **Thus, lower levels of offending are potentially informative of potential issues with the criteria used to make decisions about HROIP assignment.**

Section Summary

It is perhaps premature to be focusing on whether different policies reduce reoffending by dangerous offenders. What is first needed is an understanding of who dangerous offenders are and whether they can be prospectively distinguished from non-dangerous offenders. For several decades, assumptions were made that sex offenders were the most dangerous group of offenders within the justice system. These perceptions were based on several myths and misperceptions and resulted in many false positives (Lussier et al., 2020). Forensic psychologists attempted to address this issue through the use of actuarial and structured professional judgement risk assessment tools (Monahan, 1981), but even this has been shown to result in professional biases (Blais, 2014).

Decisions regarding s. 810 orders, dangerous offender designations, and long-term offender designations are made in somewhat arbitrary ways, and because of this arbitrariness, have received relatively mixed support in terms of their efficacy in protecting the public (Lussier et al., 2014). The HROIP might be helpful for addressing these issues by assisting practitioners in making more informed decisions about who should be considered a dangerous offender and who should not. Figure 1 shows the processes behind the HROIP. The HROIP has yet to be evaluated. Is the HROIP successful in identifying dangerous offenders? Can we learn from the HROIP which characteristics place someone at risk for continued offending, and can these characteristics be identified *before* other serious offenses are committed so as to help promote public safety?

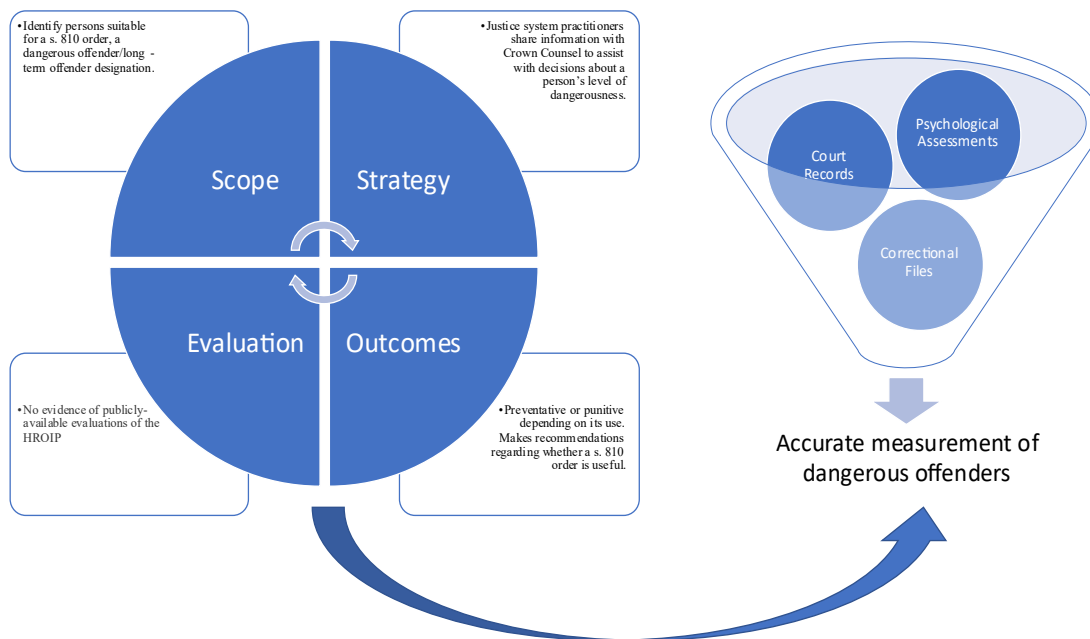


Figure 1. Outline of the functioning of the HROIP and its intended consequences on the measurement of dangerousness.

Report Aims

The HROIP is designed to improve the identification of dangerous offenders as opposed to responding to such persons in a particular way. The HROIP is confined to BC, but it also similar to other programs, such as the National Flagging Service (NFS), which aimed to identify dangerous offenders to enhance applications seeking preventative detention. The NFS was evaluated by comparing flagged offenders to other offenders to evaluate its accuracy in identifying dangerous offenders (Blais & Bonta, 2014). Given this similarity to the HROIP, this report may have implications for other strategies seeking to identify dangerous offenders. Five main questions were addressed in this report. Four were specific to the evaluation of the HROIP and the last question addressed how to identify dangerous offenders beyond those assigned to the HROIP.

Who are the Offenders Assigned to the HROIP?

This question was addressed by describing the characteristics of a subsample of participants from the Incarcerated Serious and Violent Young Offender Study (ISVYOS) who were assigned to the HROIP. What did individuals in this subsample look like in terms of frequency of offending and types of crimes committed? This question addressed whether the HROIP subsample appeared to be dangerous offenders based on their criminal histories. Is the HROIP subsample homogenous or heterogenous? This question addressed whether practitioners agree on who should be assigned to the HROIP.

Heterogeneity may indicate that the unstructured professional judgment approach resulted in errors and biases in identifying dangerous offenders.

Are Offenders Assigned to the HROIP Different from Other Offenders?

For the HROIP to be effective, it is necessary to not just identify a group of persons who possess characteristics that place them at a high risk to reoffend. This risk must be higher compared to other offenders not included in the HROIP. If this risk is not higher, it suggests that decisions to assign persons to the HROIP are based on a poor understanding of what constitutes dangerous offending. Accordingly, this program will not help improve public safety. To address this question, the report compared the offending histories of the HROIP group to the offending histories of a subsample of male participants from the ISVYOS who were not assigned to the HROIP. A more serious pattern of offending among the HROIP subsample compared to the non-HROIP subsample would indicate accurate decision-making by practitioners.

Did Offending Change after Placement on the HROIP?

If a person does not reoffend after being given a dangerous offender designation at age 40, does this mean that the order was successful, or did this person not reoffend because they were at an age where they were no longer at-risk of reoffending? It is not always possible to tease apart the impact of age on reoffending from the impact of the intervention strategy on reoffending. However, this question can be addressed when evaluating the HROIP because the HROIP is not itself a particular intervention strategy impacting risk for reoffending. This report used evidence of change or stability in offending that occurs post-HROIP assignment to evaluate the efficacy of the HROIP. **In this case, a lower level of offending post-HROIP assignment is evidence *against* the usefulness of the HROIP because it suggests that an individual was assigned to the HROIP *after* their level of dangerousness peaked (i.e., the policy was too reactive).** Rarely do studies have this opportunity to investigate within-individual change. The typical approach is to examine whether the rate of recidivism varies between different groups (e.g., HROIP compared to non-HROIP). This is a flawed strategy because, in the absence of a randomized control design, differences between groups may be due to factors other than their group status.

By examining within-individual change, each person acts as their own control, which accounts for unobserved time-invariant factors that might differ between the two groups (see Figure 2). To give a concrete example, imagine two offenders. “Offender A” is a man assigned to the HROIP. “Offender B” is a woman not assigned to the HROIP. “Offender A” may have a higher rate of offending compared to “Offender B”. This *could* be attributed to their assignment to the HROIP. However, because men generally offend more frequently than women, it is possible that gender differences explain why “Offender A” and “Offender B” differ. While gender can be controlled for, there are an infinite number of other characteristics that might distinguish offenders, and between-group analyses have

trouble accounting for *all* these different characteristics. Within-individual analyses address this challenge by focusing on differences within persons rather than differences between groups.



Figure 2. Distinguishing within-individual analyses from between-group analyses.

Are There Ways to Improve HROIP Assignment?

Dangerous offenders become a familiar face to police, probation officers, and custody staff. Criminologists have done a poor job of providing these practitioners with empirical research regarding how to identify this group. Accordingly, the fourth question addressed by this report looked at whether there were specific criminal history indicators that could be used to help improve practitioners' decisions about who should be assigned to the HROIP. Analyses relied solely on information that would be readily available to practitioners so that the findings had practical utility.

Are HROIP Indicators of Dangerous Generalizable to Other Offenders?

Offenders assigned to the HROIP are not the only individuals in the justice system considered dangerous. The final research question in this report used the criminal history indicators identified as important to the HROIP subsample and evaluated whether these indicators were informative of dangerous offending more generally. These analyses were designed to assist practitioners who may not be responsible for assigning offenders to the HROIP but who nevertheless may be involved in various intervention/enforcement/suppression efforts targeting dangerous offenders.

Section Summary

This report answered the following questions:

1. What are the characteristics of offenders assigned to the HROIP? Is there variability among this group?
 - This question addressed which specific offending features were most important to assignment to the HROIP.

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2. Do offenders assigned to the HROIP differ from other offenders?
 - This question addressed whether assignment to the HROIP was characterized by subjective decision-making that limited practitioners' ability to accurately identify dangerous offenders.
 3. Did offending post-HROIP assignment provide evidence that this was a dangerous group of offenders?
 - This question addressed whether assignment to the HROIP was too reactive (i.e., responding to offenders when they no longer remained a danger to the public).
 4. Are there specific criteria that should be used by practitioners to inform their assignment of offenders to the HROIP?
 - This question addressed which quantitative and qualitative indicators were most informative of dangerous offending.
 5. Can the criteria for dangerous offending be generalized beyond offenders assigned to the HROIP?
 - This question addressed the offending criteria informative of dangerous offenders more broadly and not just those who were assigned to the HROIP.

Method

Sample

Data from the Incarcerated Serious and Violent Young Offender Study (ISVYOS) in British Columbia (BC), Canada, were utilized for this report. The ISVYOS includes 1,620 individuals who were incarcerated in adolescence and had criminal history data available. As of February 2021, 72 ISVYOS participants (4.4% of the sample) were assigned to the HROIP between 2005 and 2019. All but one of the 72 participants were male. This HROIP subsample was compared to the remaining male participants in the study ($n = 1,214$). Female participants were excluded from the comparison sample because they are generally not considered dangerous offenders (e.g., Bonta et al., 1998). The sample used in the current study included an overrepresentation of Indigenous Persons (26.7%) when compared against the general population of BC (Statistics Canada, 2013). The remainder of the sample identified as White (55.2%) or as a person from a non-Indigenous minority group (e.g., Black, Hispanic, South-East Asian; 18.1%).

Procedures

The ISVYOS conducted interviews with incarcerated youth and collected file-based information on risk factors associated with the continuation of this activity into adulthood. To recruit participants, informed consent was provided by the BC Ministry of Children and Family Development (MCFD). This allowed the research team to approach youth in custody centers throughout BC. Youth were approached on their living unit and asked whether they would like to participate in the study. To obtain assent, participants were read and

given a copy of an information sheet explaining the purpose of the study, how information would be collected (e.g. interview and file information), that they could withdraw at any time, and that information would be kept confidential unless the participant threatened to hurt themselves or someone else.

The ISVYOS accessed criminal history data from the Corrections Network (CORNET). The average age of participants at the time their criminal history was coded was 30.63 ($SD = 4.65$; Range = 22-40). Criminal history information included on CORNET also identifies whether an offender was assigned to the HROIP and the date of this assignment. This was used in the current study to distinguish who was/was not assigned to the HROIP as well as to compare an individual's pattern of offending before/after HROIP status.

Measures

Some of the most accurate predictors of a person's risk for future offending are based on indicators of their past criminal history (Loeber & Le Blanc, 1990). Thus, measures of past offending can be informative of a person's level of dangerousness (i.e., risk for future offending). The identification of dangerous offenders has relied on both quantitative and qualitative indicators of offending (but typically not both). In the current report, quantitative indicators refer to the *amount* of offending whereas qualitative indicators describe the *type* of offending.

For quantitative indicators, convictions were measured at each age from ages 12 through 40. The start of the follow-up period represented the minimum age of criminal responsibility in Canada. From that point on, every criminal charge (and the crime-type) that resulted in a conviction was coded at each person-period observation (i.e., frequency of convictions at age 12, at age 13, etc.). Participants in the study averaged 24.37 ($SD = 201.9$) total convictions, 3.12 ($SD = 3.09$) violent convictions, and 1,136.57 ($SD = 1237.49$) days in custody, or approximately 36 months. Total convictions are informative of an offender's level of overall criminal activity whereas violent convictions and days incarcerated speak to the severity of a person's pattern of offending. To capture the versatility of someone's pattern of offending, which is another measure of their level of dangerousness (McCuish et al., 2021), seven crime types were coded: violent, property, administrative, weapon, drug, miscellaneous, and sexual. These seven crime types were summed to provide an indication of the number of different crime-types an individual perpetrated ($M = 4.21$; $SD = 1.48$). Additionally, the current study looked at the age of onset of offending, which is an important indicator of risk for life-course persistent (LCP) offending (Moffitt, 1993). The average age of justice system involvement for members of the sample was 14.69 ($SD = 1.48$).

For qualitative indicators of dangerousness, several types of offending outcomes were measured. These included firearm offenses (30.6% of the sample), homicide offenses (10.3%), K-Files⁸ (35.4%), sexual offenses (14.2%), and convictions that resulted in a federal

⁸ K-Files denote a domestic violent offense perpetrated against a family member or intimate partner.

custody sentence (21.4%). At the time of this report, 8.3% of the sample were deceased, with the most common cause of death being drug overdose.

Analytics Strategy

The analyses were divided into five sections to address the five research questions noted above. The first four analyses were used to evaluate the efficacy of the HROIP. The fifth analysis was used to better understand dangerous offenders more broadly. First, univariate and cluster analyses were performed to develop a clearer understanding of the characteristics of persons assigned to the HROIP. Bivariate analyses were performed to examine differences *among* HROIP offenders according to their cluster group membership. Second, bivariate analyses were performed to compare offenders assigned to the HROIP with offenders not assigned to the HROIP. Third, a series of within-individual analyses using paired-samples *t*-tests were performed to examine whether the justice system involvement of offenders assigned to the HROIP differed pre-HROIP assignment versus post-HROIP assignment. Fourth, traditional criminal career parameters were evaluated in terms of their usefulness for improving decisions regarding who should be assigned to the HROIP. Fifth, key indicators of dangerousness identified for the HROIP subsample were included in a series of analyses examining whether these indicators were informative of a serious offending trajectory for the ISVYOS sample more broadly (i.e., not confined to the HROIP subsample). This was done to identify whether practitioners can use findings from the current study to identify dangerous offenders beyond those who were assigned to the HROIP.

Question #1: Who Are the Offenders Assigned to the HROIP?

Table 3 describes the HROIP subsample. Regarding demographic characteristics, it was highly unlikely for women to be associated with the HROIP. Compared to the distribution of ethnicity in the general population, Indigenous Persons were overrepresented in the group of offenders assigned to the HROIP. Eight percent of this subsample were deceased at the time of the most recent phase of data collection (Spring 2021). On average, participants were assigned to the HROIP in their mid twenties. This is substantially younger than the average age of persons designated as dangerous offenders (e.g., Bonta et al., 1998), which may be evidence that the HROIP is more proactive in identifying dangerous offenders. However, the age range of HROIP assignment showed wide variability (Range = age 15 to age 35), indicating that for some offenders, their assignment to the HROIP may have occurred too late in their criminal career. The average age at the time of most recent follow-up was 32.24 (*SD* = 4.78), meaning that the study had approximately 10 years of data prior to assignment (i.e., age 12 to age 23) and approximately 10 years of data post-assignment (i.e., age 23 to 32).

In terms of quantitative indicators of dangerousness, the HROIP subsample averaged 35.85 total convictions and 6.17 violent convictions. The HROIP subsample spent approximately seven years of the follow-up period incarcerated, which amounted to

nearly 33% of a participant's life since age 12. The HROIP subsample, on average, perpetrated five of the seven different crime types measured. The average age of justice system was 13.89 years old.

In terms of qualitative indicators of dangerousness, over half the sample had a history of firearm offenses and 75% of the sample received a federal custody sentence. Approximately a third of the sample perpetrated a sex offense and the same was true of homicide offenses and K-File offenses. Nearly 100% of the HROIP subsample were involved in at least one serious violent offense, which was defined as involvement in at least one of the following: homicide offense, sexual offense, firearm offense, federal sentence, K-file offense.

Finally, PCL:YV scores were also examined given the importance and predominance of discussions of psychopathy during dangerous offender assessments (e.g., Blais, 2015). The average score on the PCL:YV was 25.44 ($SD = 6.26$).

Table 3. Descriptive characteristics of offenders assigned to the HROIP (n = 72). † Serious offenses included involvement in a homicide offense, firearm offense, sex offense, K-File offense, or federal custody sentence.

	% (n)	M (SD)
Demographic Characteristics		
Ethnicity		
Indigenous	31.9% (22)	–
White	55.1% (38)	–
Non-Indigenous Minority	13.0% (9)	–
Gender		
Male	98.6% (71)	–
Female	1.4% (1)	–
Age at Follow-Up	–	32.24 (4.78)
Age Assigned to HROIP	–	23.46 (4.47)
Deceased	8.3% (6)	–
Criminal History		
Total Convictions	–	35.85 (16.47)
Violent Convictions	–	6.17 (3.63)
Months Incarcerated	–	88.65 (47.62)
Conviction Versatility	–	5.24 (1.14)
Justice System Age of Onset	–	13.89 (1.38)
Homicide Offense	29.2% (21)	–
Firearm Offense	58.3% (42)	–
Sex Offense	33.3% (24)	–
K-File	34.7% (35)	–
Federal Sentence	73.6% (53)	–
Serious Offense†	95.8% (69)	–
ISVYOS Risk Factors		
PCL:YV Total Score		25.44 (6.26)

Table 4 shows how the clusters differed between each other. A lack of differences would suggest homogeneity among the clusters. However, the clusters differed from one another in important ways. The most notable feature of Cluster 1 ($n = 34$; 47.2% of the sample) was that 100% of individuals had a history of possessing a firearm illegally or using a firearm in the commission of an offense. Relative to the other clusters, a disproportionately high percentage of Cluster 1 were involved in a homicide offense. Finally, this cluster averaged the most time spent incarcerated. The defining feature of Cluster 1 was their involvement in firearm offenses. Individuals who use firearms for criminogenic purposes tend to have higher levels of criminal social capital (Morselli, 2002). This could also be a strong indicator of gang involvement (Roberto et al., 2018). In fact, using additional data from the ISVYOS where we measured participants' gang involvement, 100% of individuals in Cluster 1 were gang involved. **Coordination with municipal gang task forces/gang squads may be especially important for closer monitoring and surveillance.** Further, being associated with gun-carrying and discharging of firearms is associated with gunshot victimization, not just for the individual in question, but for persons in their social network (Tracy et al., 2016). Additionally, because of the severity of the individuals associated with this cluster, **duty to warn policies may be a necessary, not just for the individual on the HROIP, but also for persons who were found in the social networks of offenders from Cluster 1.**

Cluster 2's ($n = 23$; 31.9% of the sample) defining feature was involvement in homicide offenses or sexual offenses, but even then, less than half of this cluster were involved in such offenses. Aside from these crimes, their offending was not especially serious. Cluster 2 was associated with the fewest number of total convictions and violent convictions and averaged the lowest amount of time incarcerated. One individual in Cluster 2 spent less than 100 days in custody over the entire study period. In Cluster 1, the offender with least amount of time incarcerated spent 700 days in custody. In Cluster 3, the offender with the least amount of time incarcerated spent 1,400 days in custody. This suggested that relative to the other clusters, offenders assigned to Cluster 2 were least appropriate for assignment to the HROIP. None of the homicide offenses committed by Cluster 2 were perpetrated with a firearm, suggesting a less serious form of homicide offense compared to Cluster 1. Indeed, none of the offenders in Cluster 2 were involved in any type of offense involving a firearm. Federal sentences were also rarer for Cluster 2 compared to the other clusters. It is possible that Cluster 2 represented offenders assigned to the HROIP because of the perceived severity of their homicide/sexual offense as opposed to their risk of future offending.

Cluster 3 ($n = 15$; 20.8% of the sample) was involved in various forms of violence and averaged the greatest number of violent convictions. All cluster members had a K-File offense (i.e., partner/family violence) and all members also served time in federal custody. Overall, this group could be distinguished by a pattern of versatile forms of violent offending that extended to different contexts (e.g., street-based violence, family violence) and was serious enough to result in at least one instance of being sentenced to federal custody. **Anger management training and cognitive behavioral therapy may**

therefore be especially important for this group as a way to help re-write scripts/behavioral patterns used in response to negative experiences/stressors. From a surveillance and monitoring perspective, home visits and awareness of the presence of intimate partners is critical (Kebbell, 2019). Awareness of stressful life events or substance use may be triggers for violence, especially intimate partner violence (Roberts et al., 2011).

Overall, the quantitative indicator of dangerousness that was most important for distinguishing between the clusters was the number of violent convictions ($\eta^2 = 0.12$). The qualitative indicator of dangerousness that was most important for distinguishing between the clusters was whether an offender had a history of committing a firearm offense ($\phi = .887$).

Table 4. Association between offense characteristics and cluster groups[†]. Note: [†] Percentages represent the percent of persons in a given cluster associated with the offending outcome of interest; ^a indicates significantly different from Cluster 1; ^b indicates significantly different from Cluster 2; ^c indicates significantly different from Cluster 3.

	Cluster 1-Firearm Offenders (<i>n</i> = 34) % (<i>n</i>) / <i>M</i> (<i>SD</i>)	Cluster 2-Lower-Rate Offenders (<i>n</i> = 23) % (<i>n</i>) / <i>M</i> (<i>SD</i>)	Cluster 3-Repeat Offenders (<i>n</i> = 15) % (<i>n</i>) / <i>M</i> (<i>SD</i>)	χ^2/F , <i>df</i> , <i>p</i> , ϕ/η^2
Demographic Characteristics				
Ethnicity				
Indigenous	23.5% (8)	47.6% (10)	4 (28.6%)	$\chi^2(4) = 7.32, p = .120, \phi = .230$
White	22 (64.7%)	47.6% (10)	6 (42.9%)	
Non-Indigenous Minority	4 (11.8%)	1 (4.8%)	4 (28.6%)	
Age at Follow-Up	33.26 (4.67)	30.65 (4.88)	32.33 (4.53)	$F(2, 69) = 2.12, p = .128, \eta^2 = 0.02$
Age Assigned to HROIP	23.85 (4.59)	22.30 (4.02)	24.38 (4.78)	$F(2, 69) = 1.23, p = .299, \eta^2 = 0.01$
Deceased	11.8% (4)	8.7% (2)	0.0% (0)	$\chi^2(2) = 1.89, p = .388, \phi = .162$
Criminal History				
Total Convictions	39.06 (16.53) ^b	26.78 (16.07) ^{a,c}	42.47 (10.91) ^b	$F(2, 69) = 6.11, p = .004, \eta^2 = 0.08$
Violent Convictions	5.97 (2.72) ^b	4.43 (3.94) ^{a,c}	9.27 (3.08) ^b	$F(2, 69) = 10.28, p < .001, \eta^2 = 0.12$
Months Incarcerated	100.99 (41.51) ^b	69.22 (52.47) ^a	90.46 (46.00)	$F(2, 69) = 3.26, p = .044, \eta^2 = 0.04$
Conviction Versatility	5.35 (1.20)	4.91 (1.20)	5.47 (0.83)	$F(2, 69) = 1.41, p = .250, \eta^2 = 0.02$
Justice System Age of Onset	13.97 (1.51)	14.00 (1.38)	13.53 (1.06)	$F(2, 69) = 0.63, p = .538, \eta^2 = 0.01$
Homicide Offense	38.2% (13)	34.8% (8)	0.0% (0)	$\chi^2(2) = 7.88, p = .019, \phi = .331$
Firearm Offense	100% (34)	0% (0)	53.3% (8)	$\chi^2(2) = 56.64, p < .001, \phi = .887$
Sex Offense	29.4% (10)	43.5% (10)	26.7% (4)	$\chi^2(2) = 1.60, p = .449, \phi = .149$
K-File	17.6% (6)	17.4% (4)	100% (15)	$\chi^2(2) = 8.84, p = .012, \phi = .350$
Federal Sentence	73.5% (25)	56.5% (13)	100% (15)	$\chi^2(2) = 35.62, p < .001, \phi = .703$
Serious Offense	100.0% (34)	87.0% (20)	100.0% (34)	$\chi^2(2) = 6.67, p = .036, \phi = .304$
ISVYOS Risk Factors				
PCL: YV Total Score	25.90 (6.53)	24.70 (6.57)	25.32 (5.99)	$F(2, 35) = 4.75, p = .892, \eta^2 = 0.00$

Section Summary

The typical profile of the HROIP subsample was a White male offender who was assigned to the HROIP around age 23. They averaged about 1.5 convictions across *each* year of age between ages 12-32. They spent about seven of these 20 years incarcerated. They had at least one conviction for a serious offense (e.g., a homicide offense, sexual offense, firearm offense, federal sentence, or K-file offenses). However, this average profile masked heterogeneity among offenders assigned to the HROIP. Using a two-step cluster analysis, three clusters emerged that revealed that individuals assigned to the HROIP were not a homogenous group. Cluster 2 represented about a third of individuals assigned to the HROIP. Cluster 2 was not associated with an especially serious pattern of offending compared to Clusters 1 and 3. There are improvements to be made when assigning individuals to the HROIP. The next sections of this report addressed whether the offending pattern of Cluster 2 (and the other clusters) was more serious when compared to ISVYOS male participants who were not assigned to the HROIP.

Question#2: Are Offenders Assigned to the HROIP Different from other Offenders?

Programs and policies designed to identify dangerous offenders often lack a comparison group, which makes it difficult to identify whether risk factors and recidivism rates among the 'dangerous offender' group meaningfully differ from other offenders. The previous section described the HROIP sample and differences *among* this sample. What remains unclear is whether the offending histories of the HROIP subsample differ enough from other offenders to warrant the "dangerous" label. This section compared the HROIP subsample to the non-HROIP subsample and then compared the HROIP subsample clusters identified in the previous section to the non-HROIP subsample. The non-HROIP sample is not representative of the average person involved in the justice system. These are individuals who by an early age showed a pattern of serious and violent offending that resulted in their incarceration as a youth. Incarceration is rarely used as a sentencing option for youth in BC (e.g., approximately 1 in 1,500 youth experience incarceration in BC; see Statistics Canada, 2020). If differences are observed, it will be especially strong evidence of the success of the HROIP in identifying dangerous offenders.

Table 5 compares the HROIP offenders to male participants from the ISVYOS who were not assigned to the HROIP. Indigenous Persons were not overrepresented in the HROIP subsample, which contrasts with other dangerous offender policies (Almond et al., 2021; Public Safety Canada, 2018). In terms of quantitative indicators of dangerousness, the HROIP subsample was involved in significantly higher levels of general offending and violent offending and spent substantially more time in custody compared to non-HROIP offenders. In terms of qualitative indicators of, the HROIP subsample were significantly more likely to be involved in homicide offenses, sex offenses, firearm offenses, and offenses resulting in a federal custody sentence.

Table 5. Comparison of the HROIP and non-HROIP subsamples. Note: [†] Differences in criminal history remained after controlling for differences in the length of the follow-up period; ^{††} Indicates Levene's test of equal variance violated.

	Non-HROIP (<i>n</i> = 1,214) % (<i>n</i>) / <i>M</i> (<i>SD</i>)	HROIP (<i>n</i> = 72) % (<i>n</i>) / <i>M</i> (<i>SD</i>)	χ^2/t , <i>df</i> , <i>p</i> , ϕ/d
Demographic Characteristics			
Ethnicity			
Indigenous	26.4% (295)	31.9% (22)	
White	55.2% (617)	55.1% (38)	$\chi^2(2) = 1.78, p = .412, \phi = .04$
Non-Indigenous Minority	18.4% (206)	13.0% (9)	
Age at Follow-Up	30.53 (4.62)	32.24 (4.78)	$t(1284) = -2.45, p = .014, d = .36$
Deceased	101 (8.3%)	8.3% (6)	$\chi^2(1) = 0.00, p = .997, \phi = .00$
Criminal History[†]			
Total Convictions	23.70 (20.19)	35.85 (16.47)	$t(1284) = -3.03, p = .002, d = .66$
Violent Convictions ^{††}	2.93 (2.95)	6.17 (3.63)	$t(76.69) = -7.42, p < .001, d = .98$
Months Incarcerated ^{††}	34.90 (38.83)	88.65 (47.62)	$t(76.70) = -9.40, p < .001, d = 1.24$
Conviction Versatility ^{††}	4.15 (1.48)	5.24 (1.14)	$t(85.64) = -7.70, p < .001, d = .83$
Justice System Age of Onset ^{††}	14.74 (1.50)	13.89 (1.38)	$t(1228) = 4.68, p < .001, d = .59$
Homicide Offense	9.1% (111)	29.2% (21)	$\chi^2(1) = 29.59, p < .001, \phi = .15$
Firearm Offense	28.9% (351)	58.3% (42)	$\chi^2(1) = 27.72, p < .001, \phi = .15$
Sex Offense	13.1% (153)	33.3% (24)	$\chi^2(1) = 22.82, p < .001, \phi = .14$
K-File	35.4% (430)	34.7% (25)	$\chi^2(1) = 0.01, p = .904, \phi = .00$
Federal Sentence	18.3% (222)	73.6% (53)	$\chi^2(1) = 123.75, p < .001, \phi = .31$
Serious Offense	64.2% (752)	95.8% (69)	$\chi^2(1) = 30.23, p < .001, \phi = .16$
ISVYOS Risk Factors			
PCL:YV Total Score	21.45 (6.67)	25.44 (6.26)	$t(425) = -3.45, p = .001, d = .62$

Figure 4 depicts the “crime-mix” for the HROIP and non-HROIP subsamples. The crime-mix shows (a) the average frequency of offending at each year of age and (b) the proportion of total crimes accounted for by seven crime-types: violent, property, administrative, weapon, drug, miscellaneous and sexual. In terms of support for the efficacy of the HROIP, the HROIP subsample averaged a greater number of offenses at each year of age and were more likely to have more serious offenses (e.g., violent offenses) that comprised a greater proportion of their total offenses compared to the non-HROIP subsample. In terms of evidence against the HROIP, Figure 4 indicates that the HROIP group’s average rate of convictions peaked in adolescence. Recall that the average age of assignment to the HROIP was age 23. This means that individuals were typically assigned to the HROIP after the point at which their risk for offending was highest.

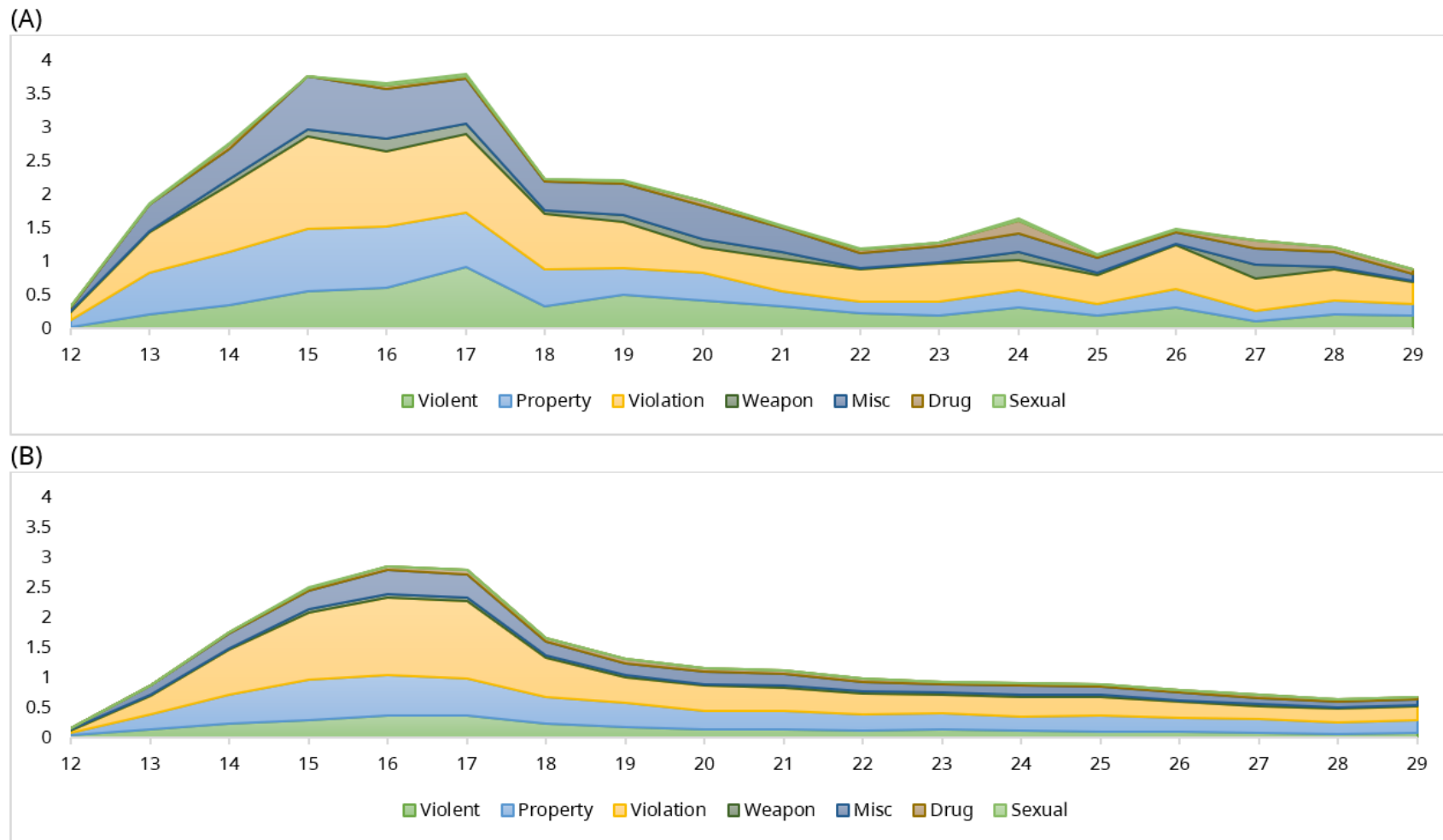


Figure 4. Crime-mix compared across the HROIP (Panel A) and non-HROIP (Panel B) subsamples. Note: X-axis reflects offender's age; Y-axis reflects number of convictions.

Figure 5 depicts the proportion of all offenses that were of a serious nature (i.e., violent, weapon, and sexual-based offenses). This figure illustrates that the HROIP subsample is not just involved in a higher rate of general offending and violent offending. It is also true that the probability that any given offense perpetrated by this group was of a serious nature was

twice as high compared to the non-HROIP subsample. The HROIP subsample averaged approximately 36 convictions and one in every four was for a serious offense. In contrast, the non-HROIP subsample averaged approximately 24 convictions but only one in every eight was for a serious offense.

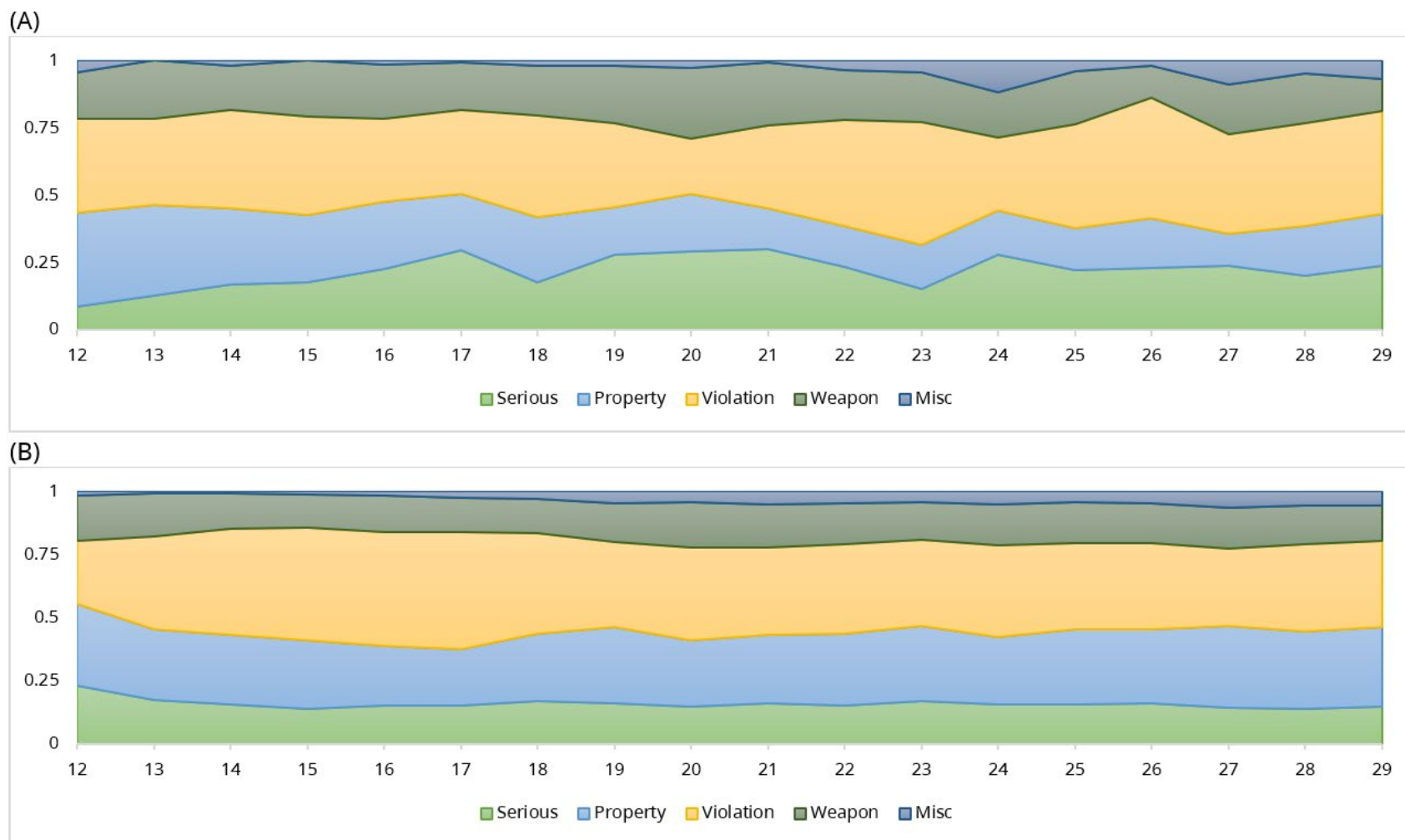


Figure 5. Proportion of all crimes considered 'serious' compared across the HROIP (Panel A) and non-HROIP (Panel B) subsamples. Note: X-axis reflects offender's age; Y-axis reflects number of convictions.

Comparing the HROIP Clusters Across the Non-HROIP Subsample

The two-step cluster analysis performed earlier (see Figure 3 & Table 4) illustrated heterogeneity among the HROIP group. In particular, Cluster 2, comprising 31.9% of the subsample, were associated with significantly lower quantitative indicators of dangerousness (e.g., frequency of convictions, frequency of violence) when compared to Cluster 1 and Cluster 3. Moreover, the prevalence of some qualitative indicators (e.g., firearm offenses) was also lower for Cluster 2 compared to Cluster 1 and Cluster 3. This possibly indicates that Cluster 2 is more similar to the non-HROIP subsample compared to the other HROIP clusters. Table 6 shows whether Cluster 2 should have been included in this program for identifying dangerous offenders.

Whereas Table 5 showed that the HROIP subsample was significantly older compared to the non-HROIP subsample, Table 6 shows that this was only because of differences between the non-HROIP subsample and Cluster 1 (Firearm offenders). Differences in age may be important because older offenders are at less of a risk for future offending (Lussier & Healey, 2009). There were no differences in early mortality across the non-HROIP subsample and each cluster.

When it came to quantitative differences in indicators of dangerousness, Cluster 2 did not differ from the non-HROIP subsample in terms of general convictions, violent convictions, and justice system age of onset. They did differ in terms of amount of time spent incarcerated, but possibly because Cluster 2 was involved in homicide and sexual offenses that tend to invoke lengthier sentences (Lussier et al., 2021). Homicide offenses and sexual offenses do not necessarily imply a higher risk for recidivism (McCuish et al., 2016; McCuish et al., 2018). Showing a more versatile pattern of criminal behavior (i.e., a greater number of different crime-types) is a better predictor of future offending (Lussier et al., 2016). Cluster 1 and Cluster 3 averaged a significantly greater number of convictions, a greater number of months incarcerated, and a greater degree of offending versatility compared to the non-HROIP subsample. Violent convictions and months incarcerated were the two quantitative indicators most important for distinguishing between the non-HROIP subsample and the HROIP clusters ($\eta^2 = .03$).

When it came to qualitative differences in indicators of dangerousness, homicide offenses were more common among the non-HROIP subsample compared to Cluster 3 (9.1% versus 0%). Firearm offenses were more common among the non-HROIP subsample compared to Cluster 2 (28.9% versus 0%). K-File offenses were more common among the non-HROIP subsample compared to Cluster 1 and Cluster 2 (35.4% compared to 17.6% in Cluster 1 and 17.4% in Cluster 2). Federal sentences and firearm offenses were the two qualitative indicators of dangerousness that were more important for distinguishing between the non-HROIP subsample and the HROIP clusters ($\phi = .323$ and $\phi = .268$, respectively).

Table 6. Association between offense characteristics and cluster groups[†]. Notes: [†] Indicates Levene's test of equal variance violated; ^a indicates significantly different from Non-HROIP Offenders; ^b indicates significantly different from Cluster 1; ^c indicates significantly different from Cluster 2; ^d indicates significantly different from Cluster 3.

	Non-HROIP Offenders (<i>n</i> = 1,214) % (<i>n</i>) / <i>M</i> (<i>SD</i>)	Cluster 1-Firearm Offenders (<i>n</i> = 34) % (<i>n</i>) / <i>M</i> (<i>SD</i>)	Cluster 2-Serious Violent Offenders (<i>n</i> = 23) % (<i>n</i>) / <i>M</i> (<i>SD</i>)	Cluster 3-Repeat Offenders (<i>n</i> = 15) % (<i>n</i>) / <i>M</i> (<i>SD</i>)	χ^2/F , <i>df</i> , <i>p</i> , η^2
Demographic Characteristics					
Ethnicity					
Indigenous	26.4% (295)	23.5% (8)	47.6% (10)	4 (28.6%)	$\chi^2(6) = 8.52, p = .202, \eta^2 = .060$
White	55.2% (617)	22 (64.7%)	47.6% (10)	6 (42.9%)	
Non-Indigenous	18.4% (206)	4 (11.8%)	1 (4.8%)	4 (28.6%)	
Age at Follow-Up	30.53 (4.62) ^b	33.26 (4.67) ^a	30.65 (4.88)	32.33 (4.53)	$F(3, 1285) = 4.53, p = .004, \eta^2 = .03$
Deceased	101 (8.3%)	11.8% (4)	8.7% (2)	0.0% (0)	$\chi^2(3) = 1.89, p = .595, \eta^2 = .038$
Criminal History					
Total Convictions [†]	23.70 (20.19) ^{b,d}	39.06 (16.53) ^{a,c}	26.78 (16.07) ^{b,d}	42.47 (10.91) ^{a,c}	$F(3, 71.93) = 19.63, p < .001, \eta^2 = .01$
Violent Convictions	2.94 (2.95) ^{b,d}	5.97 (2.72) ^{a,d}	4.43 (3.94) ^d	9.27 (3.08) ^{a,b,c}	$F(3, 1285) = 34.95, p < .001, \eta^2 = .03$
Months Incarcerated	34.90 (38.83) ^{b,c,d}	100.99 (41.51) ^{a,c}	69.22 (52.47) ^{a,b}	90.46 (46.00) ^a	$F(3, 1285) = 45.51, p < .001, \eta^2 = .03$
Conviction Versatility [†]	4.15 (1.48) ^{b,c,d}	5.35 (1.20) ^a	4.91 (1.20) ^a	5.47 (0.83) ^a	$F(3, 71.32) = 23.14, p < .001, \eta^2 = .01$
Justice System Age of Onset	14.74 (1.50) ^{b,d}	13.97 (1.51) ^a	14.00 (1.38)	13.53 (1.06) ^a	$F(3, 1229) = 7.66, p < .001, \eta^2 = .01$
Homicide Offense	9.1% (111)	38.2% (13)	34.8% (8)	0.0% (0)	$\chi^2(3) = 47.26, p < .001, \eta^2 = .192$
Firearm Offense	28.9% (351)	100% (34)	0% (0)	53.3% (8)	$\chi^2(3) = 92.60, p < .001, \eta^2 = .268$
Sex Offense	13.1% (153)	29.4% (10)	43.5% (10)	26.7% (4)	$\chi^2(3) = 25.73, p < .001, \eta^2 = .144$
K-File	35.4% (430)	17.6% (6)	17.4% (4)	100% (15)	$\chi^2(3) = 35.33, p < .001, \eta^2 = .166$
Federal Sentence	18.3% (222)	73.5% (25)	56.5% (13)	100% (15)	$\chi^2(3) = 133.96, p < .001, \eta^2 = .323$
Serious Offense	64.2% (752)	100.0% (34)	87.0% (20)	100.0% (34)	$\chi^2(3) = 31.42, p < .001, \eta^2 = .159$
ISVYOS Risk Factors					
PCL:YV Total Score	21.45 (6.67) ^b	25.90 (6.53) ^a	24.70 (6.57)	25.32 (5.99)	$F(3, 426) = 4.02, p = .008, \eta^2 = .01$

Section Summary

This section evaluated whether the HROIP subsample were more dangerous offenders compared to the non-HROIP subsample. There was clear evidence that the HROIP subsample as a whole was involved in a more serious pattern of offending based on both quantitative indicators (e.g., frequency of different crime-types) and qualitative indicators (e.g., involvement in specific serious offenses like firearm offenses). This lends some support to the decision-making process that goes into assigning a person to the HROIP. Therefore, denial of bail and applications for long-term offender designations and dangerous offender assessments for the HROIP subsample appeared warranted.

When the HROIP subsample was decomposed into their respective clusters, Cluster 2 did not differ from the comparison group when it came to total convictions, violent convictions, and justice system age of onset. Cluster 1 and Cluster 3 had the most evidence for possessing quantitative and qualitative indicators of dangerousness that were significantly greater or more prevalent compared to the non-HROIP subsample. Cluster 2 showed evidence of being more likely to engage in homicide offenses and sex offenses compared to the non-HROIP subsample, but overall, the offending histories of Cluster 2 suggest that they were not especially suitable candidates for assignment to the HROIP.

Question #3: Comparing Offending Pre-HROIP versus Post-HROIP

The approach of statistically comparing a treatment group (i.e., the HROIP subsample) and a comparison group (i.e., offenders from the ISVYOS not placed on the HROIP) cannot answer the question of whether placement on the HROIP could *change* anything. The HROIP did not represent a specific treatment program or intervention strategy, but it was meant to identify the highest-risk offenders who constituted a level of dangerousness that would warrant preventative or punitive types of intervention strategies (e.g., s. 810 orders, dangerous offender designations, long-term offender designations). As a starting point, analyses in this section examined whether there were differences in patterns of offending pre-HROIP assignment versus post-HROIP assignment. Were individuals included in the HROIP simply because of the nature of their offense history and not because they were at-risk of a serious pattern of offending in the *future*, which would warrant the dangerous offender label?

For those with available data¹⁰ ($n = 70$), the HROIP subsample average 11.30 ($SD = 4.43$) years of data pre-assignment and 9.01 ($SD = 4.19$) years of data post-assignment. Table 7 presents a paired-sample *t*-test that compared quantitative indicators of convictions pre-HROIP assignment and post-HROIP assignment. Total convictions and violent convictions significantly decreased post-HROIP assignment. Offenders averaged more than twice as many convictions pre-HROIP versus post-HROIP and nearly three times as many violent

¹⁰ Two participants were assigned to the HROIP at the time of the most recent phase of data collection and therefore follow-up data post-HROIP were not available.

convictions pre-HROIP compared to post-HROIP. An exposure variable was created to account for (a) differences in the amount of follow-up data (e.g., number of years followed pre-HROIP versus post-HROIP) and (b) amount of time spent incarcerated that would limit opportunities to continue to offend. This analysis showed that the rate of violent convictions once accounting for exposure time was significantly higher pre-HROIP compared to post-HROIP. The conviction exposure rate was also higher, but this did not significantly differ pre- versus post-assignment. The same trends held when compared across the three HROIP clusters.

Table 5. Paired sample t-test comparing pre- versus post-assignment to the HROIP (n = 70). Note: [†] Differences in criminal history remained after controlling for differences in the length of the follow-up period; ^{††} Indicates Levene's test of equal variance violated.

	Pre-HROIP M (SD)	Post-HROIP M (SD)	χ^2/t , df, p , ϕ/d
Criminal History			
Total Convictions	24.59 (14.74)	9.30 (8.58)	$t(69) = 7.33, p < .001, d = 1.27$
Violent Convictions	4.10 (3.03)	1.53 (1.82)	$t(69) = 5.90, p < .001, d = 1.03$
Months Incarcerated	43.96 (32.58)	35.17 (32.16)	$t(68) = 1.53, p = .131, d = .27$
Conviction Exposure Rate	40.52 (33.26)	24.91 (61.99)	$t(69) = 1.83, p = .071, d = .53$
Violent Conviction Exposure Rate	6.59 (6.06)	3.71 (8.53)	$t(69) = 2.57, p = .012, d = .39$

Was Post-HROIP Offending more Serious Compared to the Average Offender?

This section addressed whether the rate of offending post-HROIP assignment differed from the rate of offending by a non-HROIP subsample who were followed during the same time interval as the HROIP subsample (i.e., followed for nine years, starting at age 23). Beginning with quantitative indicators of dangerousness, Figure 6 shows that the HROIP subsample averaged a significantly greater number of general convictions, violent convictions, and months incarcerated during their follow-up period compared to the non-HROIP subsample. In sum, while the HROIP group averaged a lower rate of offending post-assignment compared to pre-assignment, their post-assignment rate of offending was significantly elevated relative to the non-HROIP comparison group.

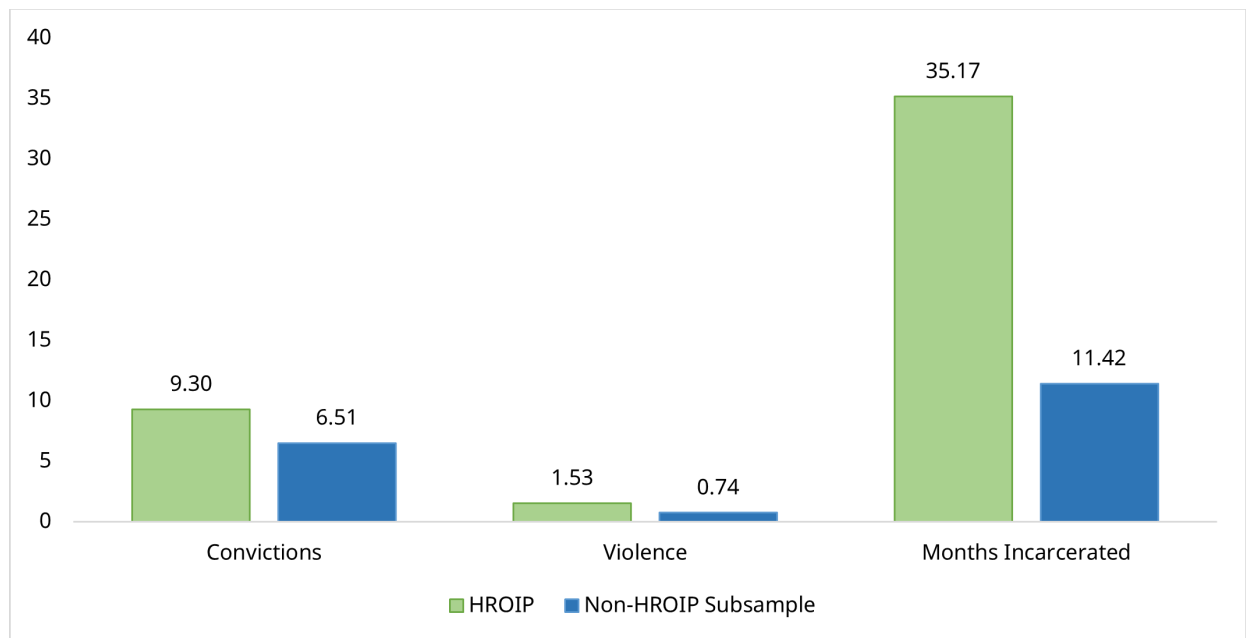


Figure 6. Quantitative indicators of dangerousness post-HROIP assignment compared to the non-HROIP subsample.

One of the critiques of the unstructured professional judgement approach is that involvement in specific offenses, especially sexual offenses and homicide offenses, influences practitioners' belief that such persons are at a high likelihood of committing serious offenses in the future. This belief is not accurate (Lussier et al., 2020; McCuish et al., 2018). Figure 7 examined the prevalence of sexual offenses and homicide offenses pre-HROIP assignment, post-HROIP assignment, and for the non-HROIP subsample.

For sexual offending, 24 persons from the HROIP were involved in a sex offense (33.3% of the subsample). Among this group, 17 only perpetrated sexual offense(s) *before* their assignment to the HROIP. Only 9.7% of HROIP offenders perpetrated a sex offense *after* they were assigned to the HROIP, which was less than the non-HROIP subsample (13.1%). For homicide offending, the exact date of a person's homicide offense was known for 15 individuals from the HROIP. Among this group, 11 only perpetrated homicide offense(s) *before* their assignment to the HROIP. In other words, for those with available data ($n = 66$), only 6.1% ($n = 4$) perpetrated a homicide offense *after* they were assigned to the HROIP. By comparison, 9.1% of the comparison group (i.e., non-HROIP offenders) were involved in a homicide offense at some point in the life course. This reflects the possibly reactive nature of the decision-making process for the HROIP.

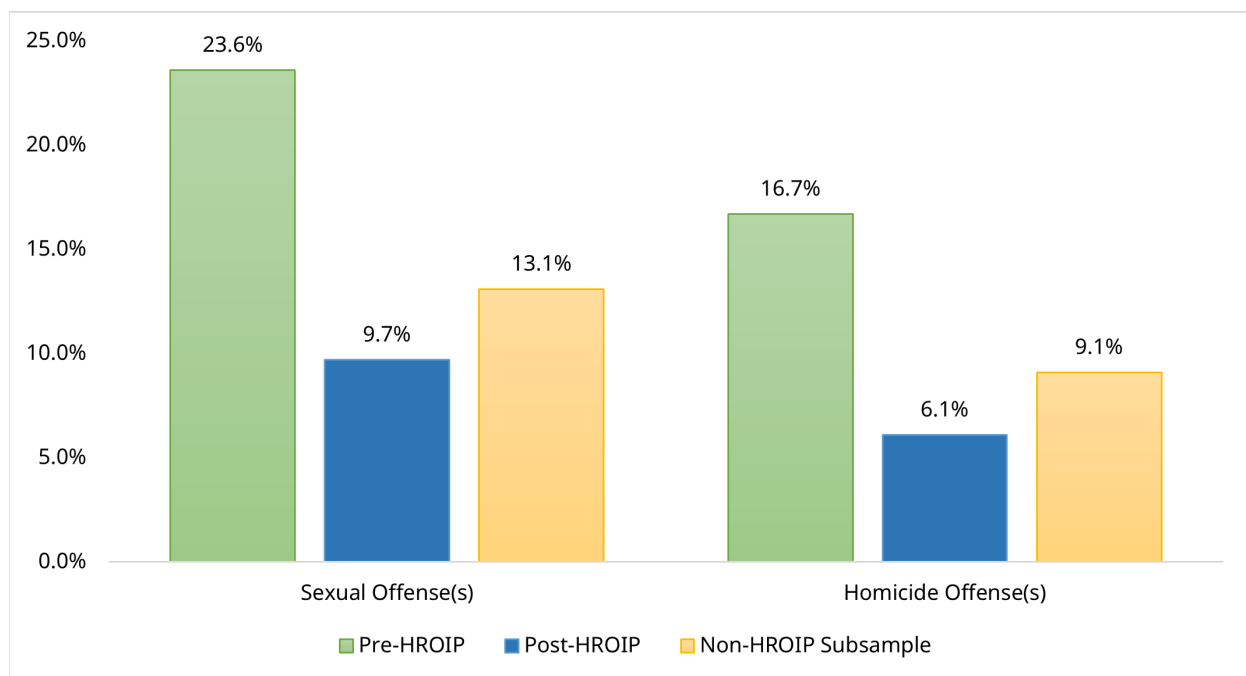


Figure 7. Prevalence of involvement in serious offenses pre-HROIP assignment, post-HROIP assignment, and for the non-HROIP comparison group.

Section Summary

For the HROIP to contribute to reductions in offending, it must include offenders who are likely to commit serious offenses in the future as opposed to including individuals who have committed serious offenses in the past but are no longer at a high-risk for future offending. Analyses revealed that those assigned to the HROIP were assigned too late in their criminal career. Specifically, their rate of offending was significantly lower post-HROIP assignment compared to pre-HROIP assignment, indicating that opportunities to reduce this group's offending were missed.

Moreover, offenders were typically assigned to the HROIP only once their risk of involvement in committing new sex offenses/homicide offenses was low. For example, about 90% of offenders assigned to the HROIP who committed sex offenses only committed sex offenses *prior* to being assigned to this program. This means the HROIP's ability to prevent *future* sex offenses was somewhat limited. Some offenders assigned to the HROIP were assigned too late in their criminal careers for there to be a substantial impact on lowering their rate of offending whereas others (e.g., Cluster 2) were assigned to the HROIP when they should not have been.

Although rates of offending were higher pre-HROIP assignment versus post-HROIP assignment, this does not mean that HROIP offenders were no longer at risk of serious offenses in the future. The HROIP group averaged a significantly greater number of convictions and greater number of violent convictions post-HROIP assignment relative to a comparison group of male offenders from the ISVYOS who were followed during the same time interval (i.e., for nine years starting at age 23). In sum, although the rate of offending

declined for the HROIP group post-assignment, this rate of offending was still higher compared to other offenders.

Question #4: Improving HROIP Assignment

The analyses in the previous section showed that individuals were typically assigned to the HROIP *after* their offending frequency/severity had peaked. The purpose of the analyses in this section was to identify quantitative and qualitative indicators of offending dangerousness that were informative of whether someone's pattern of offending was going to escalate or at least remain stable. These indicators could then be used to justify a person's assignment to the HROIP *before* their offending frequency/severity peaked. Analyses first identified members of the ISVYOS who demonstrated an especially serious pattern of offending that escalated *after* the age of 24 (i.e., after the average age of assignment to the HROIP). Analyses then identified which quantitative and qualitative indicators of dangerousness were informative of this pattern of continued serious/frequent offending. These analyses therefore provided insight into how to promote public safety by identifying individuals at-risk of continued serious offending as opposed to assigning offenders to the HROIP only after their risk of continued offending had peaked.

To start, a trajectory analysis was performed to examine conviction frequency at each year of age among ISVYOS participants. Figure 7 shows the expected number of convictions at each year of age between ages 12-35 once controlling for an individual's lack of opportunity to incur new convictions due to being incarcerated. About 20% of male offenders from the ISVYOS were associated with a pattern of convictions that emerged early in adolescence and remained high and stable over the next 20 years. This trajectory was labeled the high-rate persistence (HRP) group. Of note, among individuals who were assigned to the HROIP before age 23, only 22.2% were associated with the HRP trajectory. In effect, it was rare for individuals assigned to the HROIP to show an especially dangerous pattern of offending after their assignment to this program, reiterating the need to improve decision-making.

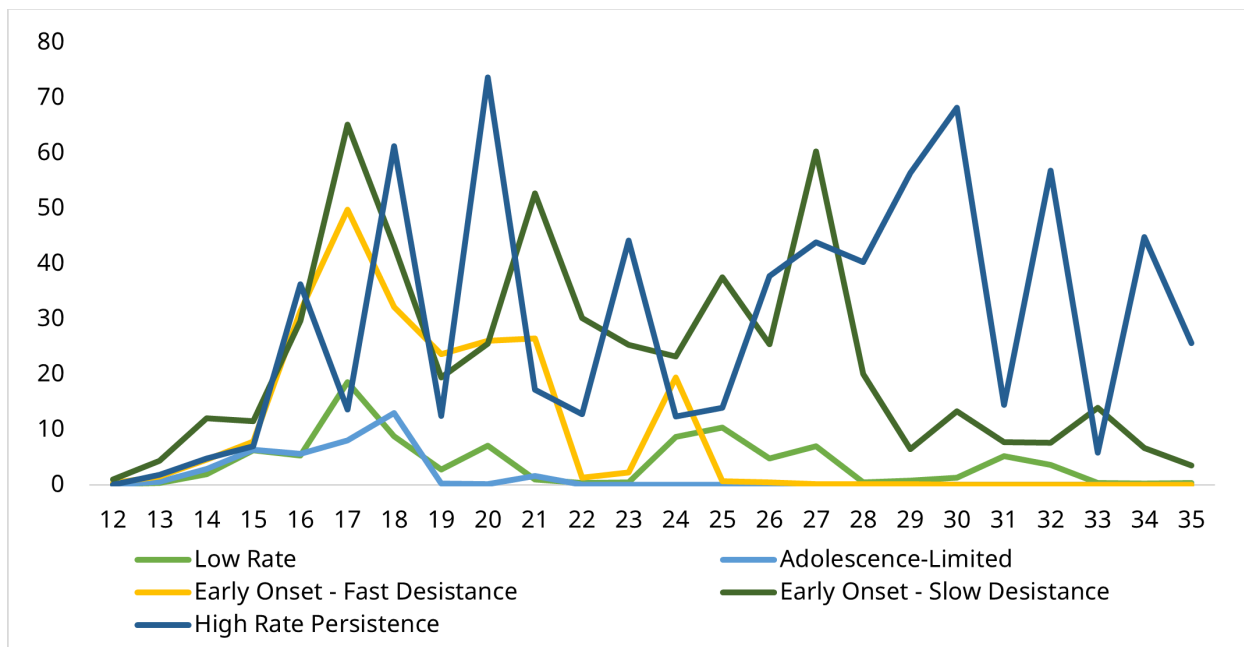


Figure 8. Trajectories of convictions of the ISVYOS sample after controlling for time incarcerated. Note: X-axis reflects year of age. Y-axis reflects expected number of convictions.

Since the average age of assignment to the HROIP was 23, analyses looked at different quantitative and qualitative indicators of dangerous offending that occurred between ages 12-23. Thus, these represented offenses that practitioners would be aware of at the time that they were typically making decisions about whether to place an offender on the HROIP. All quantitative indicators of dangerous offending were significantly higher for the HRP trajectory compared to all other trajectories. Frequency of convictions between ages 12-23 and conviction versatility between ages 12-23 were the two quantitative indicators of dangerous most strongly associated with the HRP trajectory (Cohen's $d = 0.77$ and 0.70 , respectively). Thus, these two measures should be used to help practitioners make decisions about HROIP assignment for individuals in their mid-20s.

None of the qualitative indicators of dangerous offending that appeared before age 23 were related to the HRP trajectory. Specifically, committing a sex offense or a homicide offense before age 23 was not informative of demonstrating a pattern of an extremely high rate of offending from age 24 through age 35 (see Figure 8). Thus, when practitioners are making decisions about HROIP assignment, evidence of sexual offending/homicide offending before age 23 should *not* be used to justify HROIP assignment.

Table 6. Comparison of criminal history indicators and offending trajectories from ages 12–35. Note: [†] Levene's test of equal variance violated. HRP = high rate persistent. Ages were not available for K-File offenses, firearm offenses, and federal sentences and thus could not be included in the examination of qualitative indicators of offending severity.

	Trajectories		χ^2/t , df, p , φ/d
	Non-HRP	HRP	
	($n = 252$)	($n = 63$)	
	M (SD) / n (%)	M (SD) / n (%)	
Quantitative Indicators of Offending Severity (Ages 12-23)			
Frequency of convictions [†]	18.31 (15.14)	28.43 (10.89)	t (129.2) = 6.05, $p < .001$, $d = .77$
Frequency of violence	2.12 (2.07)	2.79 (1.99)	t (312) = 2.34, $p = .020$, $d = .33$
Months incarcerated [†]	26.15 (24.27)	39.97 (18.41)	t (121.9) = 4.98, $p < .001$, $d = .64$
Offending versatility	3.73 (1.48)	4.65 (1.11)	t (123.6) = 5.48, $p < .001$, $d = .70$
Justice System Age of Onset	14.45 (1.58)	13.98 (1.21)	t (121.2) = 2.53, $p = .013$, $d = .33$
Qualitative Indicators of Offending Severity (Ages 12-23)			
Sex offending	30 (12.0%)	7 (11.7%)	χ^2 (1) = 0.01, $p = .935$, $\varphi = .01$
Homicide offending	7 (3.0%)	3 (5.2%)	χ^2 (1) = 0.64, $p = .425$, $\varphi = .05$
Assigned to HROIP	7 (2.8%)	2 (3.2%)	χ^2 (1) = 0.03, $p = .866$, $\varphi = .01$
Qualitative Indicators of Offending Severity (No Age Restriction)			
K-File	83 (32.9%)	34 (54.0%)	χ^2 (1) = 9.55, $p = .002$, $\varphi = .17$
Federal Sentence	63 (25.0%)	38 (60.3%)	χ^2 (1) = 28.86, $p < .001$, $\varphi = .30$
Firearm Offense	82 (32.5%)	42 (66.7%)	χ^2 (1) = 24.59, $p < .001$, $\varphi = .28$

For K-File, federal sentence, and firearm offenses, it was not possible to identify from the data available the age at which the offense was committed. Nevertheless, as shown at the bottom of Table 8, involvement in firearm offenses and being sentenced to federal custody were particularly strongly associated with the HRP offending trajectory. If practitioners identify offenders involved in these offenses prior to age 24, it likely means that such offenders are at an elevated risk of a continued pattern of frequent and serious offending.

Section Summary

Only about 1 in 5 offenders assigned to the HROIP before age 24 showed an especially high-rate and persistent pattern of offending that continued after age 24 (i.e., after the time at which individuals are typically assigned to the HROIP). Practitioners seemed to have difficulty identify which individuals, at an early age, represented a risk for continued offending. This reiterates the need to improve decision-making so that individuals are assigned to the HROIP who are at a high-risk of a future pattern of dangerous offending. The analyses in this section showed that quantitative indicators of dangerousness between age 12-23, especially general convictions and conviction versatility, helped identify individuals who showed a continued pattern of serious offending from age 24 onwards. Involvement in sexual offenses and homicide offenses between ages 12–23 was not informative of a continued pattern of serious offending from age 24 onwards. Future research is needed that can establish the timing of firearm offenses and federal sentences

to identify whether these *influenced* continued offending or were the *consequence* of prior frequent offending.

Question #5: The Generalizability of Indicators of Dangerousness

The analyses to this point have focused on what makes offenders assigned to the HROIP “dangerous”. What about beyond the HROIP? What constitutes dangerous offending, not just for individuals in the HROIP, but for offenders more broadly? Practitioners are likely to most commonly respond to offenders who are not already on the HROIP. Using the subsample of male offenders ($n = 1,214$) who were not assigned to the HROIP, the next set of analyses evaluated which quantitative and qualitative indicators of offending severity were most useful for identifying dangerous offenders more broadly. The problem with quantitative indicators of dangerous offending is that they are not as useful in practice as they are in research. For example, it is easy to identify who has been given a federal custody sentence. It is less easy to develop objective criteria for what constitutes a high number of violent convictions, an especially versatile pattern of offending, or a long period of time incarcerated. For example, initial studies suggested that five arrests constituted chronic offending (Wolfgang et al., 1972). For practitioners trying to identify dangerous offenders, five offenses would be far too inclusive. More objective ways of identifying thresholds for quantitative indicators are needed, and these thresholds need to be applicable to the population of interest (i.e., offenders in BC in this case). In Table 8, between ages 12-23, 28 convictions, 3 violent convictions, and 40 months incarcerated represented averages for those whose offending persisted in severity. These average thresholds were used to identify when the criteria for a particular quantitative indicator of offending was met.

Table 9 shows a preliminary inventory that measures dangerous offending based on seven quantitative/qualitative indicators of dangerousness. The sum of these seven items showed strong reliability based on tetrachoric ordinal alpha values ($\alpha = 0.80$). The average score on this scale for the male subsample was 2.89 ($SD = 1.69$; Range = 0-7).

Table 7. The dangerous offending inventory. Note: [†] Out of seven total crime-types (violent, property, administrative, weapon, drug, sexual, miscellaneous).

1.	30+ convictions	☐
2.	3+ violent convictions	☐
3.	40+ months incarcerated	☐
4.	5+ crime-types	☐
5.	K-File	☐
6.	Firearm Offense	☐
7.	Federal Sentence	☐
Score (/7):		

This scale was then compared against measures of future offending (i.e., from age 24–29) among a sample of 650 male offenders. Figure 9 plots the average number of months

incarcerated, general convictions, and violent convictions across each score from the 7-item scale. These plots show that higher scores on the dangerous offending inventory are associated with a greater number of months incarcerated, a greater number of general convictions, and a greater number of violent convictions (measured between ages 24–29). This highlights how a relatively simple checklist can be useful for identifying individuals at an elevated risk for dangerous offending. Given past concerns with the reliability and validity of risk assessment tools as they apply to Indigenous Persons, analyses were re-run for only Indigenous male participants. Findings remained significant. The findings also remained significant when focusing solely on women.

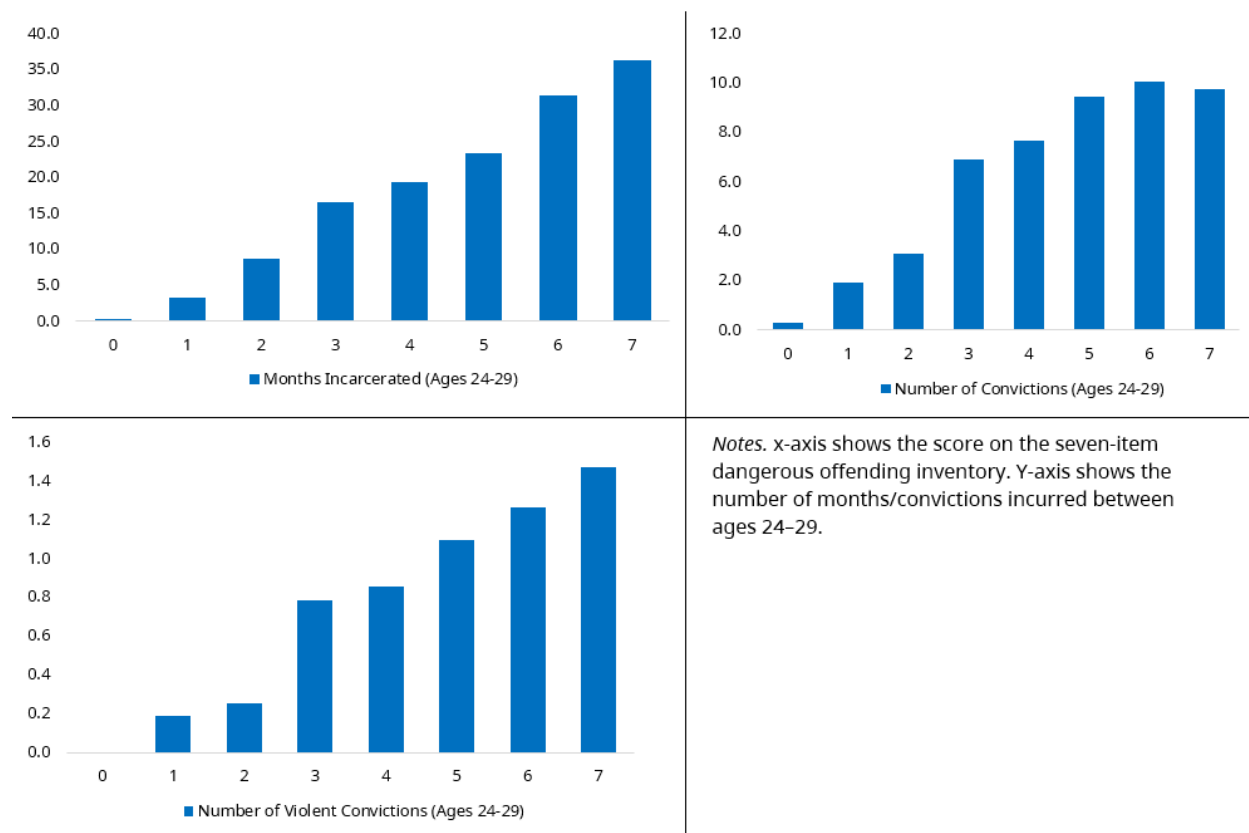


Figure 9. The relationship between the dangerous offending inventory and future offending.

Section Summary

From 2005 until recently, only 2,000 offenders in BC have been assigned to the HROIP. For reference, in BC in 2019, more than 54,000 persons were charged with an offense (Ministry of Public Safety and Solicitor General, 2020). This means that practitioners and analysts likely are very often dealing with offenders who are not assigned to the HROIP. Not being assigned to the HROIP does not mean that an offender is not a danger to the public. Indeed, as shown in Table 8, the HROIP subsample account for a small proportion of all offenders associated with the HROIP trajectory. This means that analysts require

information about dangerous offenders that is generalizable beyond those offenders who were assigned to the HROIP.

Analyses in this section were designed to identify quantitative and qualitative indicators of dangerous offending that could be generalized beyond offenders who were assigned to the HROIP. A seven-item dangerous offending inventory was created (see Table 9). The summation of these items showed that higher scores were prospectively associated with more frequent and serious offending over the next six years. **This inventory could be used to help improve more systematic decision-making, not just for assignment to the HROIP, but also for instances where practitioners and analysts are required to make decisions about, for example, duty to warn cases or who should be considered a priority target within a particular gang.**

Although there are a variety of different risk assessment tools, many of these were developed outside the BC context. Home-grown tools demonstrate significant advantages over tools developed in other jurisdictions that might be substantially different in terms of population demographics and offending severity (Duwe & Rocque, 2018). Because the dangerous offending inventory shown here was developed on a contemporary sample of persons in BC, it may be particularly useful. The dangerous offending inventory is a preliminary scale that may require updating. For example, data on drug trafficking were not available in the current data. This is another type of offense that may be an indicator of heightened criminal social capital (Yesilyurt, 2014) and thus may be important to include in the dangerous offending inventory.

Conclusion

This report began by highlighting the value, financial and otherwise, to the successful prevention of dangerous offenders. In brief, there is enormous financial benefit to the prevention of dangerous offending (e.g., millions of dollars per offender), not to mention the improvement of public safety. It then provided an overview of how dangerous offending is defined and measured and how BC has typically responded to dangerous offenders. There are both quantitative (e.g., frequency of offending) and qualitative (e.g., crime-type) ways to define dangerous offending. BC has primarily relied on qualitative indicators, especially sex offenses, and this has been recognized in policies like s. 810 orders, dangerous offender designations, long-term offender designations, and the CHROME Project. The CHROME Project which was designed to prevent future offending through the use of therapy and heightened community supervision, which is synonymous with a relapse prevention model. However, these types of strategies, in BC and Canada more broadly, tend to be quite reactive; that is, they respond to offenders only after that person has reached a particularly high rate of offending (quantitative indicator) or perpetrated a serious offense, especially sexual offenses and homicide offenses (qualitative indicator). Another concern is subjective decision-making, whereby decisions are made using characteristics of the offender that are not actually informative of their likelihood of being a dangerous offender and perpetrating serious offenses in the future.

The primary purpose of this report was to evaluate the efficacy of the HROIP in terms of its ability to accurately assign individuals to this program who were indeed high-risk or dangerous offenders. The HROIP was introduced in BC as a means of helping improve decision-making by providing prosecution services with a greater level of detail regarding offenders who might be candidates for different types of policy responses to dangerous offenders (e.g., s. 810 orders, dangerous offender designations, and long-term offender designations). Unlike other policies, the HROIP is not a specific intervention strategy. Individuals assigned to the HROIP do not receive a uniformed response, whether it be through treatment, intervention, or some form of punishment. Thus, HROIP is simply used to screen for potentially dangerous offenders rather than respond to them. Therefore, the success of the HROIP is based on its ability to accurately screen for individuals who are particularly at-risk (or not at-risk) of dangerous offending.

The efficacy of the HROIP was evaluated using data from the ISVYOS, which is a longitudinal study of individuals who were incarcerated in adolescence and have been followed up through different stages of adulthood. This report focused on 72 members of the ISVYOS who were assigned to the HROIP and a comparison sample of 1,214 male offenders who were not assigned to the HROIP. These data were used to address five main themes:

1. What are the characteristics of offenders assigned to the HROIP? Is there variability among this group?
 - This question addressed which specific offending features were most important to assignment to the HROIP.
2. Do offenders assigned to the HROIP differ from other offenders?
 - This question addressed whether assignment to the HROIP was characterized by subjective decision-making that limited practitioners' ability to accurately identify dangerous offenders.
3. Did offending post-HROIP assignment provide evidence that this was a dangerous group of offenders?
 - This question addressed whether assignment to the HROIP was too reactive (i.e., responding to offenders when they no longer remained a danger to the public).
4. Are there specific criteria that should be used by practitioners to inform their assignment of offenders to the HROIP?
 - This question addressed which quantitative and qualitative indicators were most informative of dangerous offending.
5. Can the criteria for dangerous offending be generalized beyond offenders assigned to the HROIP?
 - This question addressed the offending criteria informative of dangerous offenders more broadly and not just those who were assigned to the HROIP.

In answering the first four questions, the following positive conclusions were made about the HROIP:

1. The individuals assigned to the HROIP appeared to be a particularly dangerous group of offenders based on both quantitative and qualitative indicators.
2. The HROIP subsample had a more serious history of offending compared to a subsample of male offenders who were not assigned to the HROIP. **Violent convictions and months incarcerated were the two quantitative indicators most important for distinguishing between the non-HROIP subsample and the HROIP group. Federal offenses and firearm offenses were the two qualitative indicators of dangerousness that were more important for distinguishing between the two subsamples.**
3. Post-HROIP assignment, the HROIP subsample was associated with a more serious pattern of offending dangerousness compared to the non-HROIP subsample.
4. Unlike other policy responses to dangerous offenders, Indigenous Persons were not overrepresented in the HROIP.

The following negative conclusions were made about the HROIP:

1. There was within-group heterogeneity among the HROIP subsample. **About 25% of the sample (Cluster 2) more closely resembled the non-HROIP subsample than other offenders included in the HROIP.**
2. The above issue appeared to stem from practitioners/analysts relying on involvement in sexual offenses or homicide offenses to assign an offender to the HROIP. These offenses were not associated with future serious offending.
3. HROIP assignment tended to be too reactive; **individuals were assigned to the HROIP too late into their criminal career.** Quantitative indicators of dangerous offending were much more serious pre-assignment compared to post-assignment.
4. Post-assignment, the HROIP offender subsample were not more likely to engage in sex offenses and homicide offenses compared to the lifetime history of such offenses for the non-HROIP subsample. **As it currently operates, it is unlikely that the HROIP can help protect the public against sex offenses and homicide offenses.**

The fifth question looked at whether there were simplistic, measurable parameters of the criminal career that could be used to identify individuals who were more likely to be involved in a *future* pattern of dangerous offending (i.e., prospective rather than retrospective). A seven-item inventory that included quantitative indicators of dangerousness (e.g., offending versatility, frequency of violence) and qualitative indicators of dangerousness (e.g., firearm offenses, federal sentences) was significantly associated with future number of general convictions, violent convictions, and months spent incarcerated between ages 24-29. Studies comparing risk assessment tools identified that “home grown” tools performed better than others because they were validated using a sample representing the population of interest (Duwe & Rocque, 2018). Thus,

the dangerous offender inventory may be more useful than tools developed out-of-province. Future research is necessary to confirm whether this is the case.

Policy Implications and Next Steps

Policies designed to respond to dangerous offenders (e.g., s. 810 orders, dangerous offender designations, long-term offender designations, the CHROME Project) operate under the assumption that practitioners are the courts, especially prosecution services, are already well-equipped at distinguishing dangerous offenders from non-dangerous offenders. This assumption is not necessarily accurate. There are well-documented instances in which professional judgement is not as effective as risk assessment tools (Duwe & Rocque, 2018). Even for dangerous offender designations, which rely on forensic psychologists for conducting risk assessments on individuals who are before the courts for a dangerous offender assessment, these policies assume that prosecution services are adept at picking out, from a very large pool of offenders, those who constitute a risk to the public.

The HROIP represents a positive step towards more accurately identifying individuals who represent a danger to the public. The HROIP is useful for improving the operation of existing policies like s. 810 orders, dangerous offender designations, and long-term offender designations. This report found that, despite some limitations and avenues for improvement, the HROIP was relatively successful in identifying dangerous offenders and including them in this program/excluding from this program individuals who were not dangerous offenders (Cluster 2 was an exception).

Practitioners working in corrections have a strong understanding of their clients and their needs (Kuehn & Corrado, 2011). Agencies such as the Combined Forces Special Enforcement Unit also have analysts trained in the examination of quantitative and qualitative data used to make decisions about risk. This knowledge should be leveraged to make better screening decisions regarding who prosecution services should consider in making decisions about applications for, for example, dangerous offender designations or long-term offender designations. While this is the *current* practice of the HROIP, the analyses from this report indicate that this practice can be improved through a more structure decision-making process regarding who gets assigned to the HROIP (or who is considered a dangerous offender mor broadly). Recommendations to improve the HROIP are as follows:

1. Especially for individuals who are in the mid-20s or older, consider whether their offending frequency/severity has peaked (e.g., map out their offending trajectory by counting the number of offenses committed at each year of age; does there appear to be a decline?).
 - Do not make decisions about dangerousness *solely* based on an individual's past pattern of offending. Must consider whether the offender is at-risk of serious offending in the future, and whether age moderates this risk.

-
2. Avoid relying *solely* on a person's involvement in sexual offenses and homicide offenses to justify their assignment to the HROIP.
 - Instead, consider using the dangerous offending inventory (Table 9) or other scales that can help improve more systematic/objective decision-making.

A long-standing issue with policies for identifying dangerous offenders is the tendency to include an overrepresentation of Indigenous Persons, suggesting a possible systemic bias in how decisions are made about dangerousness. However, in the current study, the prevalence of Indigenous Persons in the HROIP subsample was not greater than the prevalence of Indigenous Persons included in the control group. This may be evidence that practitioners have more recently improved their ability to identify risk for offending based on factors that have empirical validity. Women from the ISVYOS were underrepresented in the HROIP despite evidence that some women (8.8% of the sample) were associated with a high-rate and persistent offending trajectory. Attention should be given towards reconsidering the exclusion of women from the HROIP.

The fifth question in this report looked at whether the quantitative and qualitative indicators of offense severity could be generalized to the broader sample of offenders from the ISVYOS. In terms of quantitative indicators, months incarcerated, frequency of convictions, and conviction versatility were key indicators of individuals whose pattern of offending escalated in severity during the 20s (i.e., could be considered dangerous offenders). In terms of qualitative indicators, firearm offenses and federal sentences were also associated with this type of offending trajectory. Taken together, these quantitative and qualitative indicators can be used to assist with decision-making beyond the HROIP, including their usage in duty to warn cases and in assessing the risk of dangerousness among gang members.

In terms of next steps, **adopting the dangerous offending inventory shown in Table 9 may help to help avoid biases in decisions about HROIP assignment given that higher scores on this inventory were informative of continued frequent and serious offending in the future.** This inventory was created without relying on the HROIP subsample and thus can be generalized to other offenders known to the justice system. Sexual offending and homicide offending were excluded from this inventory given that in the current study these offenses were not informative of a person's likelihood of future offending. This is not to say that practitioners should ignore all homicide offenses and sexual offenses, only that these types of offenses should not automatically be considered as indicators of future involvement in dangerous offenses. Homicide offenses using a firearm or targeting gang members may be relevant to continued dangerous offending, but future research is needed to empirically evaluate this assertion. Similarly, adults involved in sexual offenses who have a sexual attraction to prepubescent children are more likely to reoffend than other types of sex offenders (Lussier et al., 2020).

Age should be accounted for when using the dangerous offender inventory, other risk assessment tools, or even if relying on unstructured decision-making. Failing to consider the age of an offender when making decisions about their dangerousness or

appropriateness for enforcement/suppression/intervention is not just a matter of being potentially inaccurate; it may actually be *harmful*. When offenders were placed on a s. 810 order, they were most likely to recidivate by violating the conditions of their order as opposed to committing a new offense (Lussier et al., 2014). For older offenders who are otherwise not at a high-risk of reoffending, requiring them to follow restrictive conditions and monitoring may simply increase the likelihood of being detected for violating their conditions, thus resulting in a net-widening effect.

For both the HROIP subsample and the non-HROIP subsample, after approximately age 23, their rate of offending typically declined. This is not to say that (a) their rate of offending was not higher compared to other offenders and (b) that *all* individuals demonstrated this decline. However, especially when resources are limited, practitioners should consider whether the age of the offender mitigates their risk. For example, a firearm offender who receives a federal sentence may be less likely to continue this type of pattern if they are 35 years old at the time of the assessment. Placing them into a “Gang Exit” or similar program may not be the best use of resources given that their most serious offenses are likely behind them. Given that ages 23-25 is the approximate age of brain maturation and social maturation (e.g., Arnett, 2000), this may be a useful cut-point in screening tools used in decision-making. Professional overrides can be used in instances where it appears that a person’s age is not impacting the severity of their offending pattern.

This report outlined four criteria that should be addressed to ensure that policies responding to dangerous offenders are effective. Specifically, policies need to be proactive, ethical, useful, and synergistic. Table 10 outlines how the HROIP and other policies regarding dangerous offenders can meet these criteria.

Table 8. Developing effective policies for dangerous offenders.

Criteria	Definition	How to Address
Proactive	The policy is able to prevent/intervene with offenders before the period at which they are at risk of dangerous offending has passed.	For high-risk offenders in BC, with some exceptions, offending peaks in the early-mid 20s (see Figure 8). Policies should focus on younger offenders who score high on the dangerous offender inventory (see Table 9). Older offenders who score high on this inventory may no longer be at-risk for continuing this pattern of behavior.
Ethical	Cannot result in, for example, incarcerating persons based on subjective expectations of the likelihood of committing certain crimes in the future.	The dangerous offending inventory in Table 9 provides indicators of a person’s past offending. This can be used to avoid subjective speculation about what an individual might do.
Useful	Recognizing that practitioners do not have access to unlimited data and work under time constraints	The criteria identified in the dangerous offender inventory can be easily measured by practitioners who have access to an offender’s criminal history. The inventory excluded certain

Criteria	Definition	How to Address
	that make more complex policies and practices impractical.	factors (e.g., gang involvement), not because they were irrelevant, but because this information is not always known to practitioners.
Synergistic	Policies are ineffective if they conflict with mandates and objectives of the agencies responsible for implementing them.	The items included in the dangerous offender inventory were statistically significantly associated with individuals who showed a continued pattern of high-rate offending through the late 20s/early 30s.

Limitations of the Report

Evaluating the efficacy of a program is best done through an experimental design in which persons are randomly assigned to treatment or control groups. An experimental design was not feasible for evaluating the HROIP. Moreover, for ethical reasons, the implementation of an experimental design in the justice system is virtually impossible in Canada. The quasi-experimental approach used in the current report is a suitable alternative as it also involves the use of both a treatment and control group, except unlike experiment studies, group assignment is not random. However, quasi-experimental designs assume that the control and treatment groups do not differ on important variables (Hanson et al., 2002). In the current report, there are very good reasons to believe that the HROIP subsample differed from the non-HROIP subsample given that practitioners likely included certain individuals in the HROIP specifically because their prior pattern of offending was different from other offenders in the justice system. This means that policymakers should consider how individuals in the ISVYOS sample who were assigned to the HROIP might differ from other individuals assigned to the HROIP (e.g., those assigned to the HROIP who did not have a history of offending in adolescence). For example, adult-onset sex offenders who target children may not conform to the traditional age-crime curve (Hanson, 2002) and therefore, in contrast to what was stated in this report, an older age may not necessarily indicate a lower risk for dangerous offending.

Analyses in this report indicated that firearm offenses and federal custody sentences were important to assignment to the HROIP. However, data from the ISVYOS were not available (currently) to identify the timing of these qualitative indicators of dangerous offending. Therefore, it is not clear whether these offenses occurred pre-HROIP assignment or post-HROIP assignment. If they primarily occurred pre-HROIP assignment, it may be another indicator that these offenses were only retrospectively informative of dangerousness. That is, these offenses were used to justify including a person in the HROIP rather than as evidence that those who were part of the HROIP went on to commit more serious offenses than other offenders.

Finally, this report did not address *how* to respond to dangerous offenders. The HROIP was meant as a screening/flagging system. All of the individuals from this sample who were assigned to the HROIP did not actually receive a dangerous offender designation.

The analyses in this report indicated that those in the HROIP averaged a significantly greater number of convictions, a significantly greater number of violent convictions, and a significantly greater number of months incarcerated post-assignment compared to a control group of offenders who were followed for the same length of time and during a similar developmental period. Normally, this would indicate that a particular program or intervention strategy failed to reduce the offending of a high-risk group compared to a control sample. For this particular evaluation, more serious offending outcomes for the HROIP group indicated a more accurate screening process. What was not addressed in this report was whether the HROIP group received a greater amount of intervention/treatment services specifically because practitioners identified them as more at-risk of future offending compared to other offenders in the justice system.

Section Summary

Dangerous offenders represent a serious risk to public safety and result in exorbitant costs to the justice system. Strategies like s. 810 orders, dangerous offender designations, and long-term offender designations run the risk of lacking a systematic approach to establishing which offenders should be considered for these different policy strategies. The result has been a fairly reactionary approach in which offenders are identified as dangerous offenders too late in their process of offending. The HROIP was implemented to improve screening for dangerous offenders. The evaluation of this program in the current report, although limited by its inability to randomize assignment to treatment (i.e., HROIP subsample) and control (i.e., non-HROIP subsample) groups, showed that practitioners generally were successful in identifying potentially dangerous offenders and assigning them to the HROIP. However, there was also substantial variability *among* the HROIP subsample, meaning that the process of designating individuals was not necessarily systematic. About 25% of individuals assigned to the HROIP (Cluster 2) either did not have a serious offending history or they were assigned to the HROIP only after they were no longer at a high risk of committing serious offenses.

Most of the HROIP subsample's offenses came *before* their assignment to this group. This group's rate of offending was lower *after* their assignment to the HROIP. Almost all of the HROIP's sex offenses and the majority of their homicide offenses occurred before their assignment. This means that the HROIP had limited utility for screening individuals who were at risk of committing future offenses that were of an especially serious nature. Thus, the HROIP would not be especially useful for protecting the public against these particular types of offenses. More effective screening of dangerous offenders may be facilitated through a greater emphasis on past quantitative indicators of dangerous offenders (e.g., frequency of convictions, involvement in a wide range of different types of crimes). The dangerous offender inventory constructed in this report was informative of future involvement in both frequent and serious offending and may be helpful for developing more systematic approaches to classifying dangerous offenders. It may be especially helpful for use in BC given the advantage of home-grown instruments and structured decision-making over risk assessment tools developed on other populations and

professional judgement (Duwe & Rocque, 2018). Finally, whether using the dangerous offending inventory, other risk assessment tools, or relying on professional judgement, effective screening means considering the older age of the offender as evidence against their risk to the public.

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