

Harm Reduction Policies and the Shaping of Canada's Opioid Crisis

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ABSTRACT

The growing harms of the opioid crisis in Canada has encouraged proponents of harm reduction to implement safe injection sites. However, harm reduction policies continue to vary throughout the nation, resulting in restricted or no access to these facilities in several provinces and territories (Pelley, 2019). Safe injection sites have been recognized as a valuable harm reduction strategy that successfully reduces the harms associated with illicit drug use of both the individual drug user, as well as the local community (Kral & Davidson, 2017; Jackson, 2020; Mrazovac, et al., 2020; Lovisotto & Baker, 2021). These sites effectively reduce and prevent needle sharing, overdose-related deaths, street injection, disorderly conduct on the streets, hospital/emergency services, and encounters with law enforcement (Mrazovac, et al., 2020). While the existing literature widely argues for the increased implementation of these facilities, safe injection sites continue to be controversial out of concern that there will be an increased societal and economic cost (Kerr, et al., 2017; Serkissian, 2018; Giarratano, 2019). This research analyzed the data from Statistics Canada's September 2021 report on "Opioid and Stimulant-Related Harms in Canada", to assess if there was any correlation between provinces and territories that had restricted or no access to safe injection sites and higher rates of opioid related harms and deaths (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). Contrary to what has been found in the existing literature, this decreased access resulted in lower rates of opioid related harms and deaths. However, this research was capable of demonstrating the structural problems that lead to substance use disorder and ultimately demonstrated that the opioid crisis is still a serious problem that every region in the nation is still facing (Belzak & Halverson, 2018; Hatt, 2022).

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CHAPTER ONE

Introduction

Since 1999, Canada has been suffering from a significant increase in opioid-related harms and non-medical prescription opioid use (Belzak & Halverson, 2018). The problem of harmful opioid use is one that has left no province or territory in Canada unaffected. Canadians from all levels of society continue to be afflicted by the opioid crisis, with people from certain backgrounds and identities having increased risk, such as men and Indigenous peoples (Penn, 2020). These issues continue to persist in the nation for several reasons, particularly from the over-prescribing of opioids and the increased presence of opioids being laced with other drugs, such as fentanyl (Hatt, 2022).

Although many provincial governments appear to understand the severity of the issue, the desire to implement harm reduction measures to address the issue remains low in several provinces. British Columbia was the first to act on the issue, not being able to ignore the negative ramifications that this drug use was having on its communities (Boyd, 2013). Here and in other harder hit areas of the nation, local harm reduction approaches have included, but not limited to, the implementation of overdose prevention sites, temporary low-threshold drug consumption facilities, distribution of free take home naloxone kits, and more permanent safe injection sites (Collins, et al., 2019). The first sanctioned supervised drug injection site opened in British Columbia in 2003. This facility, Insite, was the first of its kind in North America (Boyd, 2013). As of 2019, Insite has had more than 3.6 million visits to inject illicit drugs under nurse supervision. There have been nearly 50,000 clinical treatment visits and almost 6,500 overdose interventions and zero deaths (Vancouver Coastal Health, 2020).

Despite the success demonstrated from some of the early implementations of harm reduction, the discussion of implementing more safe injection sites (SISs), also referred to as supervised injection sites or safe consumption sites, in Canada has been heavily contested as the merits and efficacy of the facilities continue to be debated across the nation (Kerr, et al., 2017). This debate is particularly contentious in several provinces, such as Alberta and Ontario, as both provinces continue to report some of the highest amounts of opioid-related deaths in the country (Elfein, 2021). Yet the battle still continues on finding consensus between crime control and harm-reduction policies (Belzak & Halverson, 2018). The lack of consensus regarding safe injection sites is obvious in Ontario with government officials, such as Premier Doug Ford (Bardwell, et al., 2019), health authorities, researchers, law enforcement, and the general public. All of them currently have different understandings of the value of these facilities (Contractor, Imran, Kostopoulos, & Virgilio, 2020). While those who advocate for safe injection sites have called for an increase in their implementation and practice throughout the nation in order to reduce the demonstrated harms of dirty needle use to public health, others have resisted, favouring the use of a more traditional crime control approach to the issue (Bardwell, et al., 2019). The effectiveness of safe injection sites is supported by a large body of international evidence (Ng, Sutherland, & Kolber, 2017). Numerous studies (Kral & Davidson, 2017; Jackson, 2020; Mrazovac, et al., 2020; Lovisotto & Baker, 2021) have found that safe injection sites aid in minimizing the harms and overdose-related deaths of intravenous drug use, and reduces the spread of infectious diseases (e.g., HIV/AIDS, Hepatitis B, Hepatitis C, etc.). They also aid in decreasing the number of ambulance calls, emergency department visits, and hospitalizations (Contractor, Imran, Kostopoulos, & Virgilio, 2020; Marshall, et al., 2011; Russel, et al., 2020). While this information is often widely shared and accepted, it is not enough to dissuade the

negative perceptions of those that oppose these facilities (Contractor, Imran, Kostopoulos, & Virgilio, 2020). A perfect example of this would be the growing resurgence of the “Not in My Back Yard,” or NIMBY, movements in provinces like Ontario and Alberta. This movements argues that these facilities encourage more people to use drugs, heighten social problems in the area, and depreciate local property values (Shanoff, 2019). This social and political opposition continues to be one of the most significant barriers in the expansion of safe injection sites (Kerr, et al., 2017; Kolla, et al., 2017).

After several years of policy debate, Ontario and Alberta officially approved the opening of officially sanctioned safe injection sites in 2017 (Marshall, et al., 2021). This was a year after British Columbia announced their public health emergency and supported the increased implementation of safe injection sites and other harm reduction practices (Davidson, 2020), and two years after the federal Liberal government that was elected in 2015 brought immense support for this expansion (Kerr, et al., 2017). However, the Ontario provincial government was no longer encouraged to expand these facilities when leadership changed in 2018. The provincial policy regarding safe injection sites was quickly adapted to reduce the number of facilities present in the province and reassess the criteria necessary to continue operations (Russell, et al., 2020). Similar actions transpired in Alberta when Jason Kenney was elected as premier in 2019. One of his campaign promises was to do a full examination of the social and economic impact of these facilities. The Alberta government conducted this examination and released a report in March 2020, indicating that they found the facilities to be increasing criminal activity near the sites, and overall promote an environment of lawlessness (Livingston, 2021).

Proponents of this harm reduction approach argue that the lack of provincial government support and the policy changes being made regarding these facilities is increasing operational

difficulties, ultimately diminishing any site's ability to care for the vulnerable population that utilizes its services. This is claimed to be contributing to the increasing rate of opioid-related deaths, hospital admissions, and need for Emergency Medical Services (Pelley, 2019).

Alternatively, this research also hypothesizes that regions that have restricted or no access to safe injection sites will have lower rates of opioid related deaths, hospital admission, and need for Emergency Medical Services. This research aims to determine this claim by utilizing Statistics Canada's September 2021 report on "Opioid and Stimulant-Related Harms in Canada". This updated report provides provincial and territorial data on overdoses and deaths involving opioids and stimulants from January 2016 to March 2021 (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). To better understand the regulatory severity of the opioid crisis, the data was scaled to account for the provinces and territories that have high access to safe injection sites, those that have none or are actively limiting the accessibility of these site, and those that currently have no safe injection sites. The research aims to provide a critical understanding of the correlation between the negative consequences of the opioid crisis and the level of access to these harm reduction facilities in the region. It is anticipated that the data will demonstrate that regions that have high access to harm reduction resources will have lower rates of opioid related harm and deaths, and ultimately demonstrate that the opioid crisis continues to be a growing issue in Canada and there is a dire need to implement more safe injection sites and other harm reduction policies to mitigate as much future opioid-related risk as possible.

Background

The discussion of safe injection sites is rooted in the topic of the socially undesirable behaviour of drug addiction (Macdonald, 2011). Policy development regarding drug use in Canada is historically rooted in the support for criminalization as a form of regulation (Grant,

2009). This is because the long-term objective has been to repress this negative behaviour (Macdonald, 2011). However, the past several decades has seen a significant shift in policy that has coincided with the development of the theory of harm reduction (Macdonald, 2011).

Harm reduction refers to the policies, programmes, and practices that are developed for the purpose of minimizing health, social, and legal impacts associated with a particular issue, such as drug addiction (Collins, et al., 2012). Harm reduction as an approach is seated within a larger theoretical framework of minimizing the risks and social harms of undesirable behaviour, rather than trying to prevent them. By approaching the issue, such as drug use, through a value-neutral lens, there will be more success in decreasing the adverse effects of the action without requiring the decrease or stop of that action (RNAO, 2009). This theory is still a relatively new approach in social policy but has been documented theoretically as early as the 1920s (MacMaster, 2004). At this time, a group of physicians in England found that they had more success in helping patients with a drug problem live a more productive life when they were allowed to occasionally partake in drug use (Hilton, et al., 2001). In the 1960s and 1970s, activists, doctors, and policymakers began to oppose the legal suppression of drug use and drug users and continued to promote risk reduction measures throughout the 1980s as the spreading of HIV/AIDS amongst injection drug users began to escalate (Roe, 2005). Harm reduction steadily grew predominantly through informal grassroots practices, such as front-line workers illegally distributing sterile syringes (Boucher, et al., 2017), or the implementation of methadone treatments to reduce the harm of heroin (Hilton, et al., 2001).

Canada officially adopted its first harm reduction policy in 1987 for its National Drug Strategy. In this new framework, the concept of harm was expanded beyond that of crime and violence to include the health, social, and economic implications that stem from drug use. This

change highlighted the impact that it had on all levels of governments (Macdonald, 2011). The adoption of harm reduction theory into federal policy allowed for the development of the four pillars of drug strategy that are in place today: prevention, treatment, harm reduction, and enforcement (Health Canada, 2018).

The goal of this approach is to effectively respond to those who need addiction treatment, while also addressing the issue of public disorder that arises from public drug use (Grant, 2009). The prevention pillar aims to prevent problematic substance use through increased awareness of the dangers of substance use and by assessing the social detriments to health, such as socio-economic status, homelessness, and education. To support those who wish to reduce or stop their drug use, the treatment pillar includes the provisions of pharmacological and psychosocial interventions. In the attempt to reduce all possible risks, the harm reduction pillar is intended to provide people with risk-reducing tools and resources that can be utilized at any stage of their addiction. Lastly, enforcement represents the actions of responding to illegal drug manufacturing and distribution (Taha, Maloney-Hall, & Buxton, 2019).

Canada had been recognized as an early pioneer for harm reduction, along with the Netherlands, the United Kingdom, and Australia (Macdonald, 2011). In the 1990s, Canadian public health officials and policymakers began to implement alternative measures to enforcement to help prevent the spread of HIV/AIDS amongst intravenous drug users and other groups that were known to be of high risk, such as individuals involved in the sex work industry. This community of people had specific medical needs that would have the potential of becoming more critical if they felt they had to isolate (i.e., not seek medical attention) out of fear of enforcement (Roe, 2005). However, harm reduction strategies have had a growing inconsistency in

implementation throughout the nation in recent years and are a growing cause of concern to the overall harm reduction model in Canada (Macdonald, 2011; Hyshka, et al., 2019).

The federal government has been criticized for its lack of financial investment in this policy approach. This criticism has been heightened by the budgetary increases for enforcement and other prevention measures (Hyshka, et al., 2019). Enforcement has been the most contentious pillar against that of harm reduction. The current operations of the enforcement has arguably expanded upon its initial pillar goal and is more likely to fixate on people who inject drugs and create undue risk on this vulnerable population (Weinstock, 2020). Public health understandings of harm reduction throughout provinces, such as Ontario, are also influencing the success of the model. These understandings have become narrowed as it is situated more in medicalized and moralized viewpoints of social provisions. This makes it difficult to incorporate the broader non-medical aspect of well-being that harm reduction strategies aim to promote (Boucher, et al., 2017). This change in understanding and practice of the harm reduction approach is prevalent in the ongoing discussion of safe injection sites. Reliance and growth of the harm reduction model continues to waver, despite the growing rate of the opioid epidemic (Hyshka, et al., 2019). With the primary focus of policy shifted to public safety, the harm reduction approach continues to be diminishing in practice. Many barriers reduce the support for this approach, such as lack of understanding of the short and long-term goals of harm reduction policies, reliance upon NIMBY ideology, and stigmatization of the vulnerable populations these policies aim to help (Mancini, Linhorst, Broderick, & Bailiff, 2008).

How Did We Get Here?

The ongoing opioid crisis demonstrates that although interventions have aided in protecting lives, the current system is not enough to fully counteract the leading contributors to

the issue (Fischer, Pang & Tyndall, 2019). Opioids are substances, such as fentanyl, morphine, oxycodone, and hydromorphone, that act on opioid receptors to produce morphine like-effects. They are commonly prescribed by medical professionals for pain relief (Health Canada, 2021). In 2016, opioids were ranked in the top ten of controlled substances most frequently detected by Health Canada's Drug Analysis Service, ranking just below marijuana, cocaine, and methamphetamines (Belzak & Halverson, 2018)

The use of opioids has become such a problematic issue because of their ability to produce a feeling of well-being or a state of euphoria (Health Canada, 2021). While there are various things that people might seek out to produce this feeling, such as food, entertainment, exercise, or other drugs, people who frequently use opioids develop a tolerance and therefore must continue to increase their dosage to keep achieve that feeling (Eitan, et al., 2017). This feeling of being "high" has exacerbated the potential for them to be used improperly (Health Canada, 2021). Most harms stem from an increase in the presence of fentanyl, as it is frequently prescribed to patients or can be illicitly acquired. It is also a cheap way for drug dealers to cost effectively increase the power of street drugs. This has resulted in a significant increase of other substances being laced with fentanyl which has dramatically increased the risk of overdoses (Government of Canada, 2020). Fentanyl is 50 to 10,000 times more potent than other drugs like heroin. This increased potency results in most people who consume it to experience rapid respiratory and central nervous system depression, commonly resulting in death or severe brain damage (Shaw, et al., 2019). The first reports of deaths involving fentanyl came from British Columbia and Alberta in 2011 and has continued to rise since, now being detected in the illegal drug supply in all Canadian jurisdictions (Belzak & Halverson, 2018).

When discussing the severity of the opioid crisis, it is critical to understand and explore how the issue began as it is incredibly complex and multi-faceted. It is not a solely behavioural or biological issue of addiction, but rather a problem influenced by numerous moving parts in the broader social-ecological system (Jalali, et al., 2020). Numerous major driving forces have been connected to the issue. First, physicians have a moral imperative to treat pain and relieve their patients suffering. The first International Pain Summit in 2010, declared that access to pain management was a fundamental human right. With opioids being an effective pain reliever, physicians often chose this as part of their obligation to treat pain. Following this, it is important to recognize the role of the pharmaceutical industry. At one time, opioids were primarily reserved for patients battling cancer, however in the late 1990's and early 2000's, pharmaceutical companies began to aggressively market the use of opioids for noncancer pain, resulting in significant increase in the production and distribution of opioids (Weiner, Malek, & Price, 2017). The pharmaceutical industry claimed that opioids would be more effective in helping relieve patient's pain and had a low chance of addiction. However, these claims did not undergo sufficient clinical studies and were not largely supported by science. Despite the lack of supporting evidence, physicians began to liberally prescribe opioids to their patients, resulting in a dramatic rise in opioid-related harms, including dependence, addiction, and death (Gomes & Juurlink, 2016).

The prescribing of opioids continues to be an issue in Canada today for numerous reasons. The harmful consequences of excessive opioid use started to become apparent in 2012, as physicians began to implement a series of efforts to help limit the medial opioid supply. This included de-scheduling slow-release opioids, such as oxycodone, increased prescription monitoring, and restricting prescription guidelines (Tyndall, 2018). However, while these efforts

were well intended, it did little to assist the large population of existing opioid users and failed to address many of the misunderstandings of the addictive risk of opioids (Fischer, Pang, & Tyndall, 2019). There is still a high frequency of opioid prescribing in high amounts for pain relief, fostering the ability for individuals to easily acquire the drugs from friends or family (Government of Canada, 2020).

Long term use for many has resulted in increased opioid-tolerance, requiring for higher or more frequent doses to feel the same effects and increase the likely hood of addiction. There is now a lack of awareness or barrier for some to access alternative pain treatments. These barriers include stigma towards substance use disorders, mental health issues, trauma associated with their drug usage, poverty, and lack of secure housing (Government of Canada, 2020). The main problem with the illegal drug supply continues to be the contamination of drugs and is currently the leading cause of opioid- related deaths in Canada (Health Canada, 2021). This illicit drug supply grew from the need to fill the supply gap that was created in 2012 when access to medically prescribed opioids was significantly reduced (Fischer, Pang, & Tyndall, 2019).

National Perspective

To effectively address this public health issue, it is critical to have a strong evidence base to effectively guide efforts addressed at reducing the harms of and preventing overdose deaths and to understand and address the underlying causes of problematic substance use. This is because the opioid epidemic impacts Canadians from all socioeconomic groups and from urban, suburban, and rural communities (Tam, 2018). The opioid crisis has not always been considered important on the government agenda. It was not until British Columbia declared that they were in a public health emergency in 2016, that the severity of the epidemic was fully understood (Manson-Singer & Allin, 2020). Canada has become the second largest consumer of prescription

opioids in the world, falling short to that of the United States (Penn, 2020). The detrimental impact that this has had on Canadian society is extensive but can still be difficult to fully contextualize. Obtaining reliable information on overdose events is challenging due to insufficient reporting and lack of understanding and stigmatization about overdoses and the vulnerable population (Belzak & Halverson, 2018).

Since 2016, the group most at risk of suffering from an apparent opioid-related death in Canada are those between the ages of 30 and 39, with most incidents occurring amongst males (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). This has caused the years of potential life lost due to premature opioid-related death to surpass years of life loss from alcohol addiction and pneumonia (Gomes & Juurlink, 2016). Age has become an important factor when determining the type of opioid(s) involved. For instance, Alberta commonly reports that most deaths occur in younger men and are connected to fentanyl use (Donroe, Socias, & Marshall, 2018). Whereas deaths among older individuals, over 40, were more likely to involve other opioids (Belzak & Halverson, 2018). This younger age group, as well as women, indigenous, transgender, and inmate populations, need additional harm reduction services as they have elevated rates of HIV/AIDS, mental health issues, stigmatization and marginalization, homelessness, and social service barriers (Cavalieri & Riley, 2012).

From January 2016 to March 2021, Canada reported 22,828 apparent opioid toxicity deaths (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). As a result of this accelerating rate, the life expectancy in Canada did not rise for the first time in over forty years from 2016 to 2017 (Penn, 2020). Of the reported deaths, 6,946 have occurred since the onset of the COVID-19 pandemic, spanning from April 2020 to March 2021. This is an 88% increase from the 3,692 deaths that were reported in the same time-period prior to the pandemic

(Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). In 2016, an average of eight people a day in Canada died from an apparent opioid-related death (Belzak & Halverson, 2018). Now nearly 20 people a day across Canada are dying from opioid use (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021).

From January 2016 to March 2021, there were 26,134 opioid-related poisonings that resulted in hospitalization (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). Of those hospitalizations, 5,599 opioid-related incidents and 2,549 stimulant-related incidents occurred since the start of the pandemic. This reflects a 27% and 21% increase over the previous year. The average length of stay in the hospital for an opioid-related incident is three days, and two days for those that were stimulant-related. Nearly 90% of both causes of hospitalizations occurred in British Columbia, Alberta, and Ontario in 2020 and the first quarter of 2021. These three provinces also incurred the highest rates of Emergency Medical Services (EMS). Since the onset of the pandemic, there have been over 31,898 EMS responses to suspected overdoses. This was a 62% increase from the previous year that reported 19,664 EMS responses (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021).

This increase in reported deaths, hospitalizations, and Emergency Medical Services are a continuing result of the interaction between prescriptions, diverted and illegal opioids, and the continuing entry of new and commonly more powerful synthetic opioids into the illegal drug supply (Canadian Public Health Association, 2016). The drastic increase since the onset of the pandemic is correlated to numerous factors, such as the continuing problem of laced drugs and heightened feelings of isolation, stress, and anxiety, and worsened access to social services for people who use drugs because of the pandemic (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). The rising rate of death and harm that arises from the prescribed and

illegal opioid use has many communities pleading for help in reducing these harms, particularly by means of safe injection sites (Gomes & Juurlink, 2016).

The Case of British Columbia, Alberta, and Ontario

The entirety of Canada has been suffering from the ramifications of the opioid crisis and as the issue persists, recent data demonstrates that the majority of the correlated harms are reportedly occurring in Alberta, British Columbia, and Ontario (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). British Columbia has been the hardest hit province since the onset of the opioid epidemic, making this current finding unsurprising (Collins, et al., 2019). Assumptions have been made that these provinces are experiencing these increasing rates as result of the higher populations and urban areas they have compared to other provinces. However, there are multiple factors explaining why these provinces are experiencing this impact (McGrane, Berdahl, & Bell, 2017).

British Columbia has historically been the hardest hit province of this crisis, with Vancouver being the epicentre of illicit drug use in all of North America (Bardwell, et al., 2019). The driving force behind much of the problems experienced in Vancouver is connected with housing; at the initial peak of the opioid crisis in Vancouver, the city was also impacted by a housing crisis (McNeil, et al., 2021). People who injected drugs experienced high rates of poverty and homelessness, increasing their risk for overdose (Bardwell, et al., 2019). Vancouver and the surrounding area were undergoing mass efforts of gentrification in an attempt to repurpose the ‘undesirable’ area. The gentrification strategies, such as increased police patrols, increase in rent, and changing tenant laws, created barriers for people with opioid use disorders to seek emergency and social services (Collins, et al., 2019). In British Columbia, records collected from emergency departments found that almost 30% of patients exhibiting a known or

suspected overdose were experiencing homelessness, and almost 50% of this group was between the ages of 13 and 18 (Belzak & Halverson, 2018).

The over prescription of opioids was identified as one of the key causes of the opioid crisis. Since learning of the harmful effects that this drug has on the patient, several provinces have adopted strategies to improve opioid prescribing, such as prescription monitoring programs and limitations of its dispersal in publicly funded drug plans since the mid 2000's (Clarke, et al., 2019; Gomes, et al., 2014). Despite these efforts, it was found that from 2006 to 2011, the dispensing of high-dose opioid prescriptions increased by 23% in the nation, with Alberta and Ontario having the highest annual dispensing rates. Both provinces' rates were largely driven by prescriptions for high-dose fentanyl, hydromorphone, and morphine. Both Alberta and Ontario have historically placed few restrictions on long-acting opioids, making it unsurprising that they had the highest dispensing rates for long-acting and high-dose oxycodone (Gomes, et al., 2014). This has created further complications for treating opioid use disorders, as discontinuation of the prescription could cause the individual to go into withdrawal, leading some to seek unprescribed sources to suffice their addiction. This has the potential to cause a fatal overdose as any wavering from the prescribed medication can tamper with a patient's tolerance, as well as increase their risk of consuming laced drugs (Clarke, et al., 2019). British Columbia also suffers from the over-prescribing of prescription opioids, but not to the same degree (Lim, McCracken, & Panagiotoglou, 2021).

Apart from over prescribing, problems regarding prescription and illicit opioid use have become multi-faceted in the rising prevalence of mental health disorders (Gomes & Juurlink, 2016). This has become of serious concern in provinces like Ontario, where over 50% of the population suffering from an opioid use disorder also suffer from a mental health disorder

(Morin, Eibl, Franklyn, & Marsh, 2017). This rise in correlation between mental health disorders and apparent opioid-related overdoses has come to be anticipated as the overlying issues of the two become more apparent, including the signs and symptoms of each condition (Neilson, Freeland, & Schütz, 2020). The most prevalent mental disorders amongst this vulnerable population are anxiety and mood disorders, including major depression, bipolar disorder, and post-traumatic stress disorder. This population is four times more likely to die from an opioid-related overdose (Morin, et al., 2020), and are at increased risk of facing difficult social issues such as poverty, temporarily lacking a fixed address, or chronic homeless (Morin, Eibl, Franklyn, & Marsh, 2017).

Currently, one the main problems being experienced in all three provinces is that of the rapidly increasing rate of illicit opioids, particularly fentanyl (Davidson, 2020). Between 2012 and 2019, the number of illicit drug toxicity deaths involving fentanyl rose from a mere 4% to 91% (Lim, McCracken, & Panagiotoglou, 2021). This problem has been exacerbated by the added presence of carfentanil, an opioid 100 times more powerful than fentanyl and intended to anesthetize large animals like elephants. This drug has been detected in British Columbia, Alberta, and Ontario. Alberta in particular has reported a significant increase in the use of this drug, reporting 29 deaths involving carfentanil in 2016, and 89 in the first 6 months of 2017 (Belzak & Halverson, 2018).

While these provinces have a much larger population than others, it is also crucial to examine who lives there. Alberta, British Columbia, and Ontario all have large indigenous populations (Statistics Canada, 2019). This is an important component as the indigenous population in Canada is heavily affected by high rates of substance use and abuse (Penn, 2020). In 2017, Alberta and British Columbia both published reports finding that indigenous people

were five times more likely than non-indigenous people to experience an opioid-related overdose, and three times more likely to die from an opioid-related overdose. The findings from Alberta also found that this population was five times more likely to be hospitalized and six times more likely to go to an emergency department for an opioid poisoning (Belzak & Halverson, 2018).

Though the Indigenous population is disproportionately more likely to experience the negative ramifications of opioid-dependency, people of all cultural backgrounds and age groups are experiencing increasing harm in these provinces (Penn, 2020). From 2012 to 2016/17, Alberta reported that opioid-related emergency department visits had more than doubled. Ontario and British Columbia experienced similar trends, with a 50% and 66% increase in each province. All provinces found this increase to be a result of synthetic opioid poisonings, fentanyl, and heroin (Belzak & Halverson, 2018). In light of the rapidly evolving epidemic, British Columbia officially declared a public health emergency on April 14, 2016 (Davidson, 2020). This declaration incited the formation of a provincial overdose response structure. The intent was to reunite the efforts of law enforcement and health care providers to ensure that efforts were cooperative and effective. Specific efforts included increased promotion and distribution of take-home naloxone kits, improved delivery of addictions treatment, increased supervised consumption and drug checking, and enhanced public health surveillance, communications, and logistics (MacDougall, et al., 2019).

The Costs of the Opioid Crisis

The years of potential life lost due to premature opioid-related death has surpassed years of life loss from alcohol addiction and pneumonia (Gomes & Juurlink, 2016). This loss of potential life represent a growing economic burden that will continue to persist if the opioid crisis

continues to rise at its given rate (Morin, Eibl, Franklyn, & Marsh, 2017). The Canadian Substance Use Costs and harms Working group estimated that in 2017, opioid use costs Canadians over \$5.9 billion (Hatt, 2022). The economic burden of this crisis stems from three major categories: the health care system, loss of productivity, and law enforcement and the criminal justice system (Sanyal, 2021).

The opioid crisis has been found to have exorbitant costs on the Canadian health care system. Driving these hospital fees are deaths, hospitalizations, and emergency department visits, as well as surgeries, specialized treatments, physician time, and prescription drugs (Russel, et al., 2020). According to the most recent figures from 2017, the total health care costs of the opioid crisis in Canada was \$438.6 million (Hatt, 2022), with other stimulant-related harm contributing another \$241.14 million. Nearly 70% of those opioid-incurred costs came from Alberta, British Columbia, and Ontario. In 2017 Alberta had spent \$78.75 million in health care costs as a result of opioids and \$37.72 million in costs from other stimulants. British Columbia had \$90.71 million and \$78.42 million. Ontario was found to have spent the most on opioid-related health care costs at \$132.28 million, as well as \$37.72 million on other stimulant-related costs (University of Victoria, Canadian Institute for Substance Use Research, 2017). Other direct costs associated with this included research and prevention strategies, employee assistance programs, and workplace drug testing which accounted for another \$320 million in 2017 (Hatt, 2022).

Productivity loss is a result of premature mortality, long-term disability, and work interferences, such as absenteeism and presenteeism (Sanyal, 2021). As of 2020, research has found that Canada is losing at least \$4.7 billion per year in labour productivity because of the opioid crisis. This huge economic impact is because 70% of people who have died from an overdose held employment before their death. Certain occupations have been found to report

higher cases of opioid-related deaths among their workers, such as the construction industry which accounts for a third of overdoses. This is correlated to the industries high injury rate and low job security. Other industries with high death rates include the waste, maintenance, or service industry at 20%, accommodation and food industry at 17%, manufacturing and retail at 14%, and transportation and warehousing at 4%. Nearly 745 of deaths occurred in males between the ages of 30 and 39. However, these numbers are reportedly conservative according to Cheung's study, as there is no telling how many opioid deaths go unreported as such (Cheung, Marchand, & Mark, 2020).

Lastly, the criminal justice system incurs a substantial economic cost from police protection, legal and adjudication, correctional services, and crime-related property loss (Sanyal, 2021). In 2017, Canada spent \$944.86 million on opioid-related criminal justice costs and \$800.06 million on stimulant-related criminal justice costs (Hatt, 2022). Over 70% of these costs once again incurred from Alberta, British Columbia, and Ontario. Alberta reported spending \$131.93 million as a result of opioids, and \$94.22 million from other stimulants, and British Columbia spent \$144.31 million as a result of opioids and \$69.71 million from other stimulants. Ontario incurred the highest costs once again, having spent \$413.15 million on opioid-related criminal justice issues, and \$272.55 million from other stimulants (University of Victoria, Canadian Institute for Substance Use Research, 2017).

Safe Injection Sites

The first legally sanctioned supervised injection facility in North America opened in Vancouver, British Columbia in 2003 (Boyd, 2013). The facility, Insite, was able to open after it received a federal exemption under 56.1 of the Controlled Drugs and Substances Act. The future of Insite was jeopardized in 2006 as the federal government at the time did not feel it necessary

to extend its pre-set expiration date. However, after filing a legal challenge, the Supreme Court of Canada unanimously found that barring Insite from continuing its operations would be in violation of the Charter's right to security of the person. The court found that the facility decreased the risk of death and disease, and that there was little to no evidence that it had a negative impact on public safety. This ruling allowed the facility to continue operation and increase the ease in which other regions across the nation could establish their own supervised consumption services (Manson-Singer & Allin, 2020).

In 2015, the Conservative led federal government introduced Bill C-2, the Respect for Communities Act. This act was established to impose 26 burdensome criteria that sites were obligated to adhere to if they wanted to keep their federal exemption. Harm reduction advocates criticized the legislation, noting that it imposed exceptionally difficult measures that would prevent new sites from opening and from current sites in being approved for continued operations. To aid in counteracting this, the new Liberal government that came to power in 2015 established Bill C-37, An Act to amend the Controlled Drugs and Substances Act. This reduced the number of criteria from 26 to 5. While this made the application process easier, the decision context surrounding the establishment of supervised consumption services remained complex due to the need of having multi-jurisdictional cooperation to be approved for opening and operation. This is primarily due to the healthcare being administered by the provinces and therefore support from the provinces for funding is a critical step. Beyond federal and provincial approval, municipal governments also can prevent the opening of these facilities under zoning laws. Thus, approval from all three levels of government is required (Manson-Singer & Allin, 2020).

Safe injection sites are legally sanctioned facilities that aim to provide a sanitary space for people that wish to inject their pre-obtained drugs while under the supervision of trained staff. These facilities are a harm reduction approach that are set up in areas with higher public drug use to reduce the harm associated with illicit drug use of both the individual drug user, as well as the local community (Rapid Response Service, 2021). Safe injection sites provide a stigma-free space along with assistance, access to social services, and equipment (e.g., clean needles and naloxone kits), as an attempt to reduce overdoses as well as the spread of HIV (Kral & Davidson, 2017). These facilities have been found to act as a liaison with local police services, housing, and businesses (Mrazovac, et al., 2020).

These facilities have significant and measurable social and economic benefit. Safe injection sites aim to reduce the nuisance of public drug injection by removing these individuals from the street and ultimately out of the public eye. They also encourage the proper disposal of drug paraphernalia to maintain clean streets (Kral & Davidson, 2017). Safe injection sites effectively reduce and prevent needle sharing, overdose-related deaths, street injection, disorderly conduct on the streets, hospital/emergency services, and encounters with law enforcement (Mrazovac, et al., 2020). Within the existing literature, these facilities are also found to be a beneficial tool in the attempt to de-stigmatize drug users (Lovisotto & Baker, 2021). When these facilities are offered and capable of operating to their fullest extent, they have been found to successfully reduce the need for Emergency Medical Services and hospital stays and treatment. This is because the site is offering all the needed attention and equipment to likely never need immediate additional medical services. This increased saving of lives adds more value to the economy and society as costs on these services is diminished, as well as allowing the

services to have more time and space for other members of the community in need (Jackson, 2020).

Despite all the provinces facing similar challenges, only five of the ten provinces have filed for supervised consumption site applications, with only four being successful as of 2020 (Manson-Singer & Allin, 2020). While the existing literature widely argues for the increased implementation of these facilities, safe injection sites continue to be controversial out of concern that there will be an increased societal and economic cost (Kerr, et al., 2017; Serkissian, 2018; Giarratano, 2019). Many opponents believe that the presence of safe injection sites will reduce nearby property values, discourage people who inject drugs from seeking treatment programs, encourage drug use and increase relapse rates, and expose the area to an increased risk of criminal activity (Mrazovac, et al., 2020). Much of this attitude stems from “Not in My Back Yard” movements, which has a long-seated history of opposing services and shelters that would aid people in their community (Lyon-Callo, 2001). While these fears have been largely disputed in the existing literature, the group is still firm with their perception of safe injection sites and have a considerable influence on their implementation, making it difficult to decrease the stigma (Kennedy et al., 2017; Tempalski, et al., 2007). Because of their disregard of the existing research, it is argued that NIMBY is not just a reflection of local community stigmatization, but of how there is a wider discourse in society that wants punishment for these stigmatized groups, as opposed to treatment for this vulnerable population (Tempalski, et al., 2007).

Recent Expansion of Other Harm Reduction Measures

While safe injection sites struggle to present themselves as a crucial harm reduction approach needed in Canada, other efforts have been implemented. When British Columbia officially announced that they were in a public health crisis in 2016, there was the promotion of

two other harm reduction models: overdose prevention sites and naloxone (Wallace, Pagan, & Pauly, 2019). Overdose prevention sites are similar to supervised injection sites in that they provide a space for people to inject their previously obtained drugs with sterile equipment and observation. These sites are often operated by people with lived experience as opposed to nurses and other trained medical personnel (Pauly, et al., 2020). They are seen as a low barrier point of introduction to health and social services for people who inject drugs (Government of British Columbia, 2018). The main distinction is that these facilities are only provincially sanctioned, whereas safe injection sites are also federally sanctioned and must receive approval from both levels of government. Overdose prevention sites can surpass federal approval because they operate as temporary emergency facilities. They do not require feasibility studies, police approvals, or community consultations (Pauly, et al., 2020). The “pop-up” approach of overdose prevention sites is a result of its grassroots origins. Support for these facilities was largely facilitated by grassroots activists promoting other harm reduction measures such as take-home naloxone kits (Pauly, et al., 2020).

In the attempt to further advance harm reduction strategies in Canada there has also been a large promotion of naloxone, also known as Narcan, in recent years. Naloxone is a medication often used to counter the effects of an opioid overdose. When administered, the medication will counteract the life-threatening depression that occurs on the central nervous system and the respiratory system to allow the individual to breath normally. Naloxone only works if opioids are present in the system, such as fentanyl, heroin, morphine, and codeine. The life-saving medication is non-addictive and will not have a negative effect on the individual if opioids are absent. Naloxone is typically administered by emergency response personal but can be easily and effectively administered by any layperson with minimal training (Calás, Wilkin, & Oliphant,

2016). The dose can be administered either by injection in the muscle, vein, or under the skin, or sprayed into the nose (National Harm Reduction Coalition, 2020).

The promotion of naloxone to the public is critical as it has been found that most drug overdoses primarily occur in the presence of bystanders who may be able to intervene (Karamouzian, Kuo, Crabtree, & Buxton, 2019). However, like safe injection sites, the administering of naloxone is met with apprehension and skepticism despite having vast support and research indicating its success. Much of the trepidation that people have stems from the fear of improperly administering the medication. While there are no side effects if mistakenly administered to someone not experiencing an overdose, there can be potential complications if the dose is too high or administered too rapidly. This can cause the individuals to experience acute opioid withdrawal syndrome and will cause them to potentially vomit, shiver, sweat, and tremor, or in more serious cases experience hypertensive emergencies, delirium, or seizures (Shaw, et al., 2019).

Despite the hesitancy still held by some, naloxone kits have been proven to be a successful harm reduction tool throughout Canada since the roll-out of the take home naloxone program. British Columbia started their take home naloxone program in 2012 in response to the rising overdose mortality rates cause by the influx of fentanyl. The promotion of these kits in British Columbia has been instrumental in demonstrating to people how they can help save someone from an overdose, as well as providing stigma free education to the community about people who inject drugs (Karamouzian, Kuo, Crabtree, & Buxton, 2019).

The success of naloxone in the rest of Canada is greatly hindered from its lack of accessibility. All provinces and territories in Canada permit the distribution of free take home naloxone kits, however their distribution varies remarkably. For example, Alberta has over 1,000

participating pharmacies and health care facilities where people can access free naloxone kits, whereas New Brunswick has only 4 sites (So, et al., 2020). In Ontario, only 50% of pharmacists offer free take home naloxone kits (Cid, et al., 2022). Currently only two provinces and two territories have over 80% of their community pharmacies participating in the take home naloxone program (So, et al., 2020). This low participation rate is alarming as it demonstrates a lack of compliance with the national guidelines that pharmacists should be offering a naloxone kit to every individual that has a opioid prescription (Cid, et al., 2022). This has contributed to 98% who are considered high risk of an opioid overdose reporting that do not have readily available access to a free take home naloxone kit (So, et al., 2020).

Problems with Provincial Harm Reduction Implementation

Harm reduction strategies utilize various interventionist practices like safe injection sites to reduce the detrimental ramifications of substance use and the intertwined socio-cultural stigmatization and marginalization (Magwood, et al., 2020). These policies and programs operate in the pursuit of keeping individuals, families, and communities safe from the negative consequences of high-risk substance use without promoting or forcing abstinence (Mrazovac, et al., 2020). The divisions of power between the levels of government continues to be a problem in implementing these practices in Canada. The federal and provincial/territorial governments have shared responsibility for health care; funding, administration, and health services are placed under the responsibility of provincial/territorial governments (Hyshka, et al., 2017). Though problems in implementation have developed at the provincial level (Hyshka, et al., 2019).

Within this division of power system, the provincial governments are left in charge of defining harm reduction as they see fit. However, these definitions do not coincide with how it is internationally accepted, and therefore do not implement the same efforts to prevent overdoses

and reduce the stigmatization of the vulnerable group. This includes tailoring harm reduction to the specific needs of the population, addressing the underlying causes of drug addiction, and involving the population in decision making processes. Rather the approach is typically applied broadly under addiction and mental health and STI strategies (Hyshka, et al., 2019). Provincial policies have been found to be largely rhetorical, avoiding any clear specifics on harm reduction intervention, as well as an inability to properly define governance statements including timelines, funding, and government endorsements (Wild, et al., 2021).

The influence of the 'penal state' neighbors of the United States is speculated to be the cause of Canada's inability to fully commit to harm reduction policies (DeKeseredy, 2009). Canada claims to have developed a more 'balanced approach' of policies on drugs, whereby drug use is not just a matter to be discussed judicially, but also within the public health sphere. However, this 'balanced approach' arguably still does not encompass the harm reduction ideology in an effective manner (Meyer & O'Malley, 2009). Most jurisdictions in Canada have failed to implement provincial harm reduction policies. British Columbia has the highest success in this implementation compared to the other provinces, however this application is still limited (Hyshka, et al., 2019). Despite the federal governments continued efforts to promote the four-pillar approach, they have failed to intervene with the provinces lack of implementation. This suggests that the nation is not as committed to the approach as they convey, lending explanation as to why the provinces continue to lack in harm reduction (Cavalieri & Riley, 2012).

The harm reduction approach has suffered in execution in provinces such as Ontario, primarily due to its focus on health (Ontario Harm Reduction Network, 2021). While this is an inherently good approach, the harm reduction program, such as the safe injection site, will be less likely to fully help the individuals that seek their services. Harm reduction in Ontario is

primarily concerned with the actions that are likely to put health in peril. This framework does not consider the subjective opinions of the individual and all of the outcomes that are critical to them, as well as how that impacts their life and environment (Boucher, et al., 2017). This can vary from issues regarding their addiction, homelessness, and affordable housing. As well as preventing or managing an illness, mental health concerns, gendered specific needs, or parental responsibilities (Boucher, et al., 2017; Macleod, et al., 2021). Harm reduction strategies like safe injection sites, are intended to expand beyond this health service to incorporate the multi-dimensional reasons explaining why someone is seeking their harm reduction services (Boucher, et al., 2017).

Stigmatization of People Who Inject Drugs

The evidence demonstrating the effectiveness of safe injections sites has been established for some time. The existing literature continues to demonstrate the success of these facilities in preventing overdoses, providing access to sterile needles and other drug equipment, and connecting people who inject drugs to social services and treatment (Taha, Maloney-Hall, & Buxton, 2019). However, the level of stigmatization that is still present in Canadian society towards people who inject drugs, and the principles of harm reduction is quite large. This is creating a significant barrier towards the implementation of these facilities and being able to effectively connect to the vulnerable population (Lang, et al., 2013).

Stigma garners influence from multiple societal factors, but the stigma directed at people who inject drugs is largely reinforced by the continued criminalization of drugs and drug users (Taha, Maloney-Hall, & Buxton, 2019). Despite a lack of supporting evidence, many people still place importance in the notion that those suffering from a drug addiction are deliberately partaking in anti-social and deviant behaviours. This mindset continues to fuel punitive policies

around drugs, effectively labelling those that use them as criminals (Volkow, 2021). This judicial aspect has played a significant role in influencing the perceptions of various policy makers, community stakeholders, government officials, and police (Bardwell, et al., 2019). Many people who inject drugs do intersect with the criminal justice system at some point from either as a direct or in-direct result of their addiction. This experience has been found to have the ability to worsen an individual's addiction, as well as have a harmful impact on their physical and mental health due to the lack of or inconsistent treatment. Individuals who do not receive the necessary help to treat their opioid use disorder while incarcerated are highly likely to return their drug use habits upon release, face increased stigma and labelling as a criminal, and be less likely to seek help (Volkow, 2021). The criminalization and stigmatization that continues to revolve around drug users has been found to not only impact a user's ability to self-govern, but also how they view themselves and how they handle their addiction (Ben-Ishai, 2012).

Stigmatization towards people who inject drugs essentially dehumanizes this group. Society has desensitized itself from the issues of addiction, while still placing itself in a position of control as to how these individuals are dealt with (Cortina, 2013). Stigma is often perpetuated by common language used to discuss substance use and addiction that is driven by moral opinion (Taha, Maloney-Hall, & Buxton, 2019). Terms like "addict", "drug abuser", "junkie", and "user", have contributed to the delayed setbacks of various harm reduction strategies, including safe injection sites, by implying that the vulnerable person chooses to fail and not uphold what is deemed good morals, as opposed to addressing it as the public health issue it is (National Institute on Drug Abuse, 2021; Taha, Maloney-Hall, & Buxton, 2019).

One way to overcome this stigma is to enhance the education regarding the social and biological influences that contribute to a substance use disorder (Taha, Maloney-Hall, & Buxton,

2019). What is arguably the most difficult barrier to overcome in this education is that of the personal experience. Research has shown that interactions with the vulnerable group directly has one of the best chances of achieving de-stigmatization (Mincin, 2018). However, people who are actively suffering from their drug addiction are often silenced and kept from the eyes of the wider public as much as possible. The assumption remains that they have morally failed and that they must only learn from those who have not succumbed to a drug addiction, as they do not understand the ramifications of their actions (Volkow, 2021).

The silencing of this population largely stems from distrust of their actions. When seeking medical or emergency services, most people who inject drugs report being treated in a demeaning way and are not given adequate care (Madden, 2016). People who use and abuse drugs are often viewed as being undeserving of needed health care services and are discouraged from seeking medical attention (Cortina, 2013). In harm reduction theory, a critical part of its success comes from the substance users' response and action to the harm reduction program. The degree to which we downplay the user's experience aids in explaining why harm reduction policies have struggled in parts of Canada (Friedman, et al, 2006).

Issues continue to rise out of this stigma. Solutions for the opioid crisis and addiction in general are perceived differently through the numerous policy-making players, such as law enforcement, pharmacologists, community programs, public health, and health policy, as they often hold incompatible stances with each other (Morin, Eibl, Franklyn, & Marsh, 2017). While this negative perception towards people who inject drugs is dominant in Canadian society, there are members of the public who see the benefits of the harm reduction model and how it will help combat the harms of the opioid crisis (Taha, Maloney-Hall, & Buxton, 2019). This change in mindset can be rooted in the growing acknowledgment that there was aggressive lobbying for

physicians to prescribe opioids under the premise that these drugs would be more effective in helping the patient and had a low chance of addiction (Gomes & Juurlink, 2016). However, it is often these people that are reluctant to have the safe injection site in their neighbourhood (Taha, Maloney-Hall, & Buxton, 2019).

Influence of “Not in My Back Yard” Movements

Currently in Canada, disapproval and stigma regarding safe injection sites and the people that utilize their services can be attributed to the growing presence of “Not in My Back Yard” groups (Russel, et al., 2020). NIMBY movements are associated with individuals and communities that disapprove of certain projects as they perceive them to be a threat to the safety and health of their neighbourhood, their social well-being, and their overall quality of life (Serkissian, 2018). They often favour crime control and prohibitionist frameworks because of this (Russel, et al., 2020). Since the ideology first emerged in the 1980s, it has been an influential force in terms of public policy, planning, and research (Schively, 2007). However, this is only a partial explanation of NIMBYism. These movements are often used to justify the categorization of people based off their selfish or unselfish beliefs, but as the nation becomes increasingly diverse and social issues persist, this phenomenon is better understood in the context of the broader socio-political landscape (Lyon-Callo, 2001).

The beliefs of NIMBYism can be best understood through the concept of socio-spatial stigmatization, a process whereby the stigma associated with certain people intertwines with the stigma associated with certain places. The ‘disorder of drugs’ is a relationship comprising of both the body of the addict and the social body of the city. From these groups’ understandings, addiction is a disease that is out of place from the city, as the city itself is now positioned as the place where safe consumption occurs for the rest of the community (Smith, 2010). However, the

opposition towards the ‘disorder of drugs’ has developed beyond the bounds of this physically spatial element and extends to the full discussion and presence of such topics in the community. People with NIMBY attitudes not only oppose these people, spaces, and practices, but the whole broader conversation and element that may bring reference to the fact that the problems of drug addiction are present in their community (Tempalski, et al., 2007). NIMBY groups have been responsible for turning discussions about people who inject drugs and harm reduction practices, particularly safe injection sites and free take home naloxone programs, into a highly politicized and polarizing topic (Russel, et al., 2020).

When discussing individuals and communities that are NIMBY focused, it can be difficult to determine their social impact. This is because it needs to be determined if they are acting out of the desire to protect their community, or out of opposition with the issue altogether (Davidson & Howe, 2014). Support for abstinence and prohibitionist policies often stem from a place of morality. Policy decisions rooted in moral beliefs help explain the disconnect between evidence and hesitancy to actualize harm reduction services (Serkissian, 2018). The movement has conflated the image of the drug user as one of non-productivity, deviance, and an overall lack of ability to positively contribute to society. All structural contributions of society on addiction, such as insecure housing, are cable of absolving themselves of blame and shift full accountability onto the person who injects drugs. The framing of this principle makes harm reduction spaces like safe injection sites highly contestable, being understood as drivers of public disorder (Smith, 2010).

The placement of NIMBY communities in Canada, particularly Ontario and British Columbia, is largely rooted in geographical location. Controlling zoning bylaws to regulate land use has been a common tactic implemented by NIMBY groups. Exclusionary zoning efforts have

been used as a way to restrict access to land use from seemingly neutral bylaws, that tend to have underlying discriminatory effects on this vulnerable population (Bernstein & Bennett, 2013).

There has also been long-standing tension between rural and urban areas. These communities are typically afflicted by different issues, often leading to a difference in political opinion and ideology, which has created a history of differences of opinion on the subject of safe injection sites (McGrane, Berdahl, & Bell, 2017). Rural areas are traditionally more conservative in their political ideology and are known to organize under NIMBY beliefs in recent history, such as the recent expansion of wind energy in Ontario (Walker & Baxter, 2018). However, as the drug situation continues to heighten and expand into various areas, particularly in urban environments, there has been a growing presence of NIMBY attitudes towards harm reduction policies in urban discussions, and a lessening of them in rural communities. Urban areas, which are traditionally more liberal in their political ideology, are more likely to have the perspective that safe injection sites will encourage more people to use drugs, heighten social problems in the area, and depreciate local property values (Shanoff, 2019; Russel, et al., 2020). Small rural communities throughout the province are still facing growing concerns regarding opioid-related behaviour, however, attitudes have shifted in recognition that these communities need more resources to help mitigate as much risk to the community as possible (Russel, et al., 2020; Shanoff, 2019). The problem that has escalated from these varying beliefs in attitudes is a changing policy that has drastically impacted how safe injection sites operate (Russel, et al., 2020).

Role of Police

The role of police in the opioid crisis is important to understand as enforcement is one of the four pillars of the National Drug Strategy. Within the strategy, enforcement is intended to focus on the illegal production and distribution of illicit substances and unlawful distribution of

controlled substances. However, as the crisis persists it has become apparent that arrest and incarceration are not always the appropriate route in preventing individual drug use (Taha, Maloney-Hall, & Buxton, 2019).

The successful operations of safe injection sites are highly dependent upon police being aware and respecting the special exemptions from drug law enforcement granted to formally sanctioned sites. It is highly recommended that these facilities try to maintain open communications with police to help develop agreements and conflict resolution protocols and offer specialized training for police (Strike, et al., 2020). This is because police are powerful stakeholders in cities considering establishing safe injection sites (Collins, et al., 2019). When police are surveyed on the topic, they often express the concern that the facility will create or exacerbate crime and other social issues in the neighbourhood. While these claims are not supported in empirical evidence, they still hold significant power in the decision-making process (Strike, et al., 2020).

Due to the varying attitudes that police have towards safe injection sites, there have been documented instances of harmful policing practices that have impacted the operations of the facility and user's experiences (Strike, et al., 2020). People who inject drugs often report having experienced the confiscation of their drug paraphernalia by police and ultimately resulted in their arrest or engaging in needle sharing and public injection (Boucher, et al., 2017; Bardwell, et al., 2019). Research has shown that the increased interference of police officers heightens fear of arrest and violence, resulting in often rushed or unsafe drug injection. This creates a barrier to accessing health and harm reduction services (Bardwell, et al., 2019).

In jurisdictions in which a site has been operating for several years it is more likely that there is a cooperative relationship with the police (Watson, et al., 2018). This likely stems from

open dialogue occurring in the early stages of development to aid in establishing police roles and boundary agreements (Strike, et al., 2019). These positive police relationships can be found in Vancouver. Police operate to ensure that people accessing these resources are not being harassed or arrested when entering or exiting the site. Support in this jurisdiction has expanded into police encouraging people to seek these resources. Nearly 17% of all new clients accessing the site have been referred to by the police. These police advocate for people who use drugs to seek treatment, understanding that these sites promote health, reduce harm, and improve access to services for this vulnerable population (Collins, et al., 2019).

Policy Changes in Ontario

The Ontario government took a major step in its harm reduction approach, after several years of policy debate and after the opening of the first safe injection site in Vancouver, the first of its kind in North America (Small, Palepu, & Tyndall, 2006). In 2015, the Liberal provincial government of Ontario authorized the funding for the first pilot safe injection site in the province (Morin, Eibl, Franklyn, & Marsh, 2017). Not long after, community unrest arose around the issues of crime, child safety, homelessness, and land-use conflicts as more safe injection sites began to come to fruition. The provincial government continued with its operations and opened the first officially sanctioned safe injection site in 2017. The heated discussion that ensued from the safe injection sites, particularly from community members and local police, made it an important campaign issue in the 2018 election for premier. The province of Ontario has since switched political hands to the Progressive Conservative (PC) party, led by Premier Doug Ford, which has brought forth significant changes to the harm reduction policy (Ziegler, et al., 2019).

While Ontario had started to see the gradual introduction of safe injection sites under the previous Liberal government, the PC party swiftly acted upon their campaign promise to change

the framework by declaring a withdrawal of funding for these institutions (Ziegler, et al., 2019). After the government declared that they were against these sites, they announced they were replacing the model with a more ‘streamlined’ and ‘enhanced’ delivery model. These facilities were to be referred to as “Consumption and Treatment Services” (CTS). The main difference with these facilities is that they could only operate if they followed the mandate that all clients wishing to use their services must be directed to primary care or a rehabilitation facility. This was a huge drawback from the harm reduction framework as it ultimately undermines the individual's ability to seek help when they wish to do so. Failure to comply and meet the new requirements has resulted in a loss in funding and closure of pre-existing locations. What is arguably the biggest drawback of the new policy framework was the inclusion of a new order that only a maximum of 21 consumption and treatment services could be operating throughout the province. The justification for this was that it would direct attention to rehabilitation and treatment services. This new policy has shifted the focus to minimizing drug use altogether, as opposed to minimizing the harms related to substance use. This new policy neglects to acknowledge that safe injection sites had already connected individuals to treatment, but only if the PWID sought it. The CTS approach fails to consider those who do not wish to quit using drugs or participate in a treatment program, effectively pushing individuals away from seeking the help of this service (Russell, et al., 2020). While support for quitting drugs should be available if people seek it, the policy does not show concern for how it will keep these individuals safe and healthy and minimize all associated risks (Hyshka, et al., 2019).

The push for the government to make this a prominent issue and implement change swiftly largely came from perceived public opinion. The PC party believed that there was an overall lack of community support for these sites because of the associated negative risks to the

community (Russell, et al., 2020). After being berated by the provincial minister of health, the leader of the provincial New Democratic Party, the pre-existing safe injection sites, and many communities throughout the province, Doug Ford defended his actions by stating that, “If I put one beside your house, you’d be going ballistic”. However, the only community that the premier was found to be referencing was Cabbagetown, a neighbourhood in Toronto known for its long-seated history of gentrification and NIMBY attitudes (Province cut some injection sites because area RESIDENTS 'upset', 2019).

The new policy changes did bring light to some causes of concern about safe injection site operations. In particular, the CTS approach imposed additional bureaucratic and administrative requirements, including increased data collection and reporting, restrictions on the geographical eligibility of future sites, increased hours of operations, community support for site location, accessible washrooms, and monitoring for proper needle disposal. These additional requirements are beneficial for the sites and those wishing to utilize their services, however, many of the existing safe injection sites do not have the capacity, resources, or infrastructure to meet those requirements. The requirements have made the application process even more difficult for new facilities, especially in smaller communities and more rural areas that wish to have a site, but do not have all the means to operate at the new government standards (Russel, et al., 2020).

Policy Changes in Alberta

Like Ontario, Alberta has had growing difficulties as a result of the opioid crisis and has implemented harm reduction strategies to address the issue around the same time as Ontario. Then as Ontario began to change policies, Alberta began to follow suit. In May 2017, a year after British Columbia declared their public health emergency Alberta announced their Opioid

Emergency Response Commission to implement immediate action to the opioid crisis (KPMG International Cooperative, 2018). This involved establishing seven safe injection sites in urban centres around the province from late 2017 to 2019 (Livingston, 2021). The province also worked with the College of Physicians and Surgeons of Alberta to introduce a “New Standard of Practice on Prescribing”. Opioid prescriptions would be tracked more closely and encourage alternative forms of pain treatment (KPMG International Cooperative, 2018). In the declaration of their public health crisis, the government of Alberta recognized the critical role that safe injection sites would play in their harm reduction strategies, outlining them as a key tool in combating the opioid crisis (Manson-Singer & Allin, 2020).

While the initial enthusiasm for safe injection sites was present amongst government officials and the sites reported positive results consistent with the existing literature, the utility of these facilities was met with skepticism from policymakers in 2019 (Marshall, Abba-Aji, Tanguay, & Greenshaw, 2021). These fears regarded towards the harm reduction approached coincided with that of the next provincial election, which brought forth the discussion of cutting program funding or complete program cancellation. In 2019, the conservative party led by Jason Kenney was elected and swift action was taken towards addressing these heightened fears being felt in his cabinet (Livingston, 2021).

In keeping with campaign promises, the new provincial government organized a committee to examine the social and economic impacts of the safe injections on the local communities (Livingston, 2021). Premier Jason Kenney reported that he would continue sanctioning new sites, but only after the committee conducted extensive consultations with all affected communities (Smith, 2021). This committee released a report in March 2020, including information on costs, needle debris, public disorder, opioid-related emergency incidents, drug

related deaths, and impact on local businesses. The report placed most of its attention on whether the facilities impacted neighbourhood crime (Livingston, 2021). The committee reported that resident had felt left out of the initial consultation steps and complained about lack of responses to calls of services near the sites. They found that the sites had inaccurate data collections, differed on the terms of an overdose reversal, and that opioid-related deaths and calls for Emergency Medical Services continued to increase near the site. It was also reported that there were increased issues with needle debris, which created increased concerns about community safety and ultimately resulted in an increase in crime (Supervised Consumption Services Review, 2020).

This report received immediate backlash, with local experts and advocates of harm reduction finding the report to be flawed and biased. It is argued that the report distorted police data, only used two years of police calls, and used public perception to portray an overtly negative review of the sites, suggesting that they were increasing crime. The committee also failed to review the services health benefits of the sites (Omstead, 2021). As a result of this report, the government deemed it necessary to reorganize and reallocate the structure of safe injection sites, including closing those that were not found to be a good fit for the community. This led to the announcement that Safeworks, a highly frequented site in Calgary, would be closing as it was found in the report that it increased problems of social disorder and crime. It was declared that the site would not close until more appropriate locations were found to construct two more, however hope that this will happen was low after the government announced the changing policy requirements (Baig, 2021).

In continuing with following up with the findings of the report, the provincial government announced its new policy measures for safe injection sites in April 2021, the

“Recovery- Oriented Overdose Prevention Services Guide”. Within these new measures, sites must gain the approval from the local business community and its residents. Sites will now enforce that everyone who seeks these services to provide health identification numbers, in order to effectively refer them to the treatment and recovery services that they must now access (Government of Alberta, 2021). The Alberta Health Minister Tyler Shandro announced that these measures will correct the “previous governments single focus on harm-reduction and their neglect of recovery-oriented treatment” (CBC/Radio Canada, 2021).

Included in these new policy requirements, sites will have to provide increased needle debris clean up, improved clinical standards, and more accurate record management (Government of Alberta, 2021). However, these new policy regulations fueled by the already controversial committee report are perceived as increasing the risk of stigma and discrimination of this vulnerable population. The government states that collection of personal information will help access proper identification for individuals to gain easier access to other social services, however there were no clear indication provided as to the extent that the personal information collected will be used for. This has created fear for users as they now refuse to use the sites. Users continue to feel ostracized from these sites as policing continues to heighten and more under-cover operations are performed to stop the selling and distribution of illegal drugs near the site. This increased fear of being criminalized will continue to push the vulnerable population away and escalate the severity of the opioid crisis in Alberta (Smith, 2021).

CHAPTER TWO

This Research

The Canadian opioid crisis continues to be an escalating problem that impacts the whole nation. In recent years, Alberta, British Columbia, and Ontario have been reporting accelerating

counts of deaths, hospitalizations, and need for Emergency Medical services from opioid related harms (Belzak & Halverson, 2018). These issues continue to persist for numerous reasons, such as the increasing presence of fentanyl-laced drugs. The harm reduction approaches of take-home naloxone kits and overdose prevention sites have been implemented in various parts of the nation in hopes of reducing this harm (Wallace, Pagan, & Pauly, 2019). However, the existing literature continues to promote the use of safe injection sites as they have been shown to effectively reduce and prevent needle sharing, overdose-related deaths, street injection, disorderly conduct on the streets, hospital/emergency services, and encounters with law enforcement (Mrazovac, et al., 2020).

Within the past few years Alberta and Ontario have undergone rapid changes to their harm reduction approaches. British Columbia, who opened their first safe injection in 2003, has continued to implement this harm reduction approach to the best of their ability as well as other programs (Collins, et al., 2019). Alberta and Ontario did not fully support this approach until 2017 (KPMG International Cooperative, 2018; Ziegler, et al., 2019). Quickly after these provinces implemented policies to have these facilities, public criticism quickly arose. Those who oppose these facilities argue that they will reduce nearby property values, discourage people who inject drugs from seeking treatment programs, encourage drug use and increase relapse rates, and expose the area to an increased risk of criminal activity, despite their being no evidence of this in the existing literature (Mrazovac, et al., 2020). This heavily influenced provincial governments to change these policies. Ontario announced that it would be making major policy changes to these facilities in 2018 (Russell, et al., 2020). Alberta reported that they would implementing major changes as well in 2020, that later took effect in 2021 (Livingston,

2021). These changes have been made under the premise that these facilities are causing more harm than they reduce (Livingston, 2021; Supervised Consumption Services Review, 2020).

These rapid changes to harm reduction policies are argued to have significant negative ramifications on the epidemic in both Ontario and Alberta. Proponents argue that the lack of provincial government support and the changes in policy of these facilities increases operational difficulties, ultimately diminishing its ability to care for the vulnerable population that utilizes its services (Pelley, 2019). It must be explored if there is a correlation between these changes in safe injection policies and procedures in provinces like Ontario and Alberta and increased opioid-related fatality as compared to provinces like British Columbia who continue to advocate for and expand this harm reduction practice.

Data and Methods

In order to examine the correlation between the rate of opioid related deaths and the province's commitment to harm reduction, i.e., whether they had safe injection sites, this research analyzed Statistics Canada's September 2021 report on "Opioid and Stimulant-Related Harms in Canada". This report is generated from data that is submitted by the provinces and territories to the Public Health Agency of Canada. Data that is released by the provinces and territories has the potential to differ due to different types of data reporting, difference in time periods presented, and/or the populations estimates used for calculations (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021).

This research analyzed the total crude rates for the provinces and territories from 2016 and 2020 in order to assess if there were any statistically significant relationships between provincial and territorial regulatory context and opioid harm at the population level. The year 2016 was chosen as the start for the analysis as this is the year that British Columbia declared

their public health state of emergency and committed to further increasing harm reduction practices in the province (Manson-Singer & Allin, 2020). The year 2020 was selected as the end date as between the years of 2016 to 2020, there was a significant commitment made to harm reduction by several provinces that later withdrew its commitment to safe injection sites before or by 2020 (Marshall, Abba-Aji, Tanguay, & Greenshaw, 2021; Ziegler, et al., 2019).

The data was analyzed in the Statistical Program for the Social Science (SPSS) electronic software program. The first stage of the analysis involved adjusting the data so that the crude rates were reflected; rates per 100,000 population were used for this analysis. The total of all opioid related incidents were calculated for each province and territory for the years 2016 and 2020 to assess if this rate had risen, stayed the same, or decreased over the four-year time span. In order to explore the hypothesis that policies that permit and encourage safe injection sites will have lower rates of opioid-related incidents, the provinces and territories were placed in a regulatory severity scale ranging from 1 to 3. A score of 1 indicated the regions that attempt to promote access to and expand the offerings of safe injection sites the most, a score of 2 was given to the regions that had implemented safe injection sites but were actively in the process of restricting or eliminating them, and 3 was reserved for the remaining regions that provided no such facilities to their residents at this time. Further explanation of these scores are provided in subsequent sections. With this regulatory severity scale added bivariate correlations were conducted. The results of this data will allow for the examination of the correlation between provinces and territories that promote the harm reduction strategy of safe injection sites and the rate of opioid related incidents reported.

Analysis

The results of this research are gathered from an analysis of the public health data provided by the provinces and territories regarding opioid related deaths and hospitalizations. After assigning a regulatory severity level to each province and territory, as demonstrated in Table 1.0, to assess its relationship with each dependent variable it was found that two thirds of the provinces and territories in Canada provided no access to safe injection sites between 2016 to 2020. The inconsistency that is present in the implementation of harm reduction across the nation reflects the disparity in the current decentralized federal structure.

Regulatory Severity

Table 1.0: Regulatory Severity Index

Regulatory Severity Level	Province/Territory
1 – Most Access	British Columbia Quebec
2 – Restricted Access	Alberta Ontario
3 – No Access	Manitoba New Brunswick Newfoundland and Labrador Nova Scotia PEI Saskatchewan Northwest Territories Nunavut Yukon

Most Access

Between 2016 and 2020, British Columbia and Quebec were the only provinces continuously committed to improving access to safe injection sites. After the 2015 federal election of the Liberal Party of Canada, cities like Montreal quickly started to develop plans to establish safe injection sites (Kerr, 2017). Montreal was successful in opening three safe

injection sites in 2017 and also become the second city in Canada, after Vancouver, to open a mobile site (Bruemmer, 2018). Major cities in Quebec, such as Montreal, were successful in quickly opening these sites as they were able to receive support from all levels of government (Kerr, 2017).

With British Columbia already having multiple safe injection sites, their goal was to expand their harm reduction practices while also ensuring accessibility to their previously standing safe injection sites. Their 2016 public health emergency declaration highlighted how it was no longer enough for them to only focus on certain cities and that the government was taking an all of province approach (Government of British Columbia, 2018). With the support from the provincial government overdose prevention sites were able to easily pop up and 18 had been established by the end of 2017, and the process to seek federal approval for several new safe injection sites, including a woman only facility in Vancouver, had been started (Kerr, 2017).

Restricted Access

After the 2015 federal election, Ontario, like Quebec, quickly started working on plans for opening and expanding safe injection sites in the province and opened their first sanctioned safe injection site in 2017 (Ziegler, et al., 2019). These facilities were not able to operate for long before changes were quickly made. The 2018 provincial election came with it a promise to change these facilities from safe injection sites to consumption and treatment services locations (Ziegler, et al., 2019; Russell, et al., 2020). This change in policy was enacted in October 2018 and included numerous provisions that altered the level of care provided, such that all clients wishing to use their services must be directed to primary care or a rehabilitation facility and that only 21 of these could be operating throughout the province at a time. The inability to comply

with the new policy resulted in many pre-existing locations losing their funding (Russell, et al., 2020).

Alberta, like Ontario, also began its plans for implementing safe injection sites, recognizing the important role they played in the ongoing opioid crisis that was afflicting their population (Manson-Singer & Allin, 2020). The province was successful in opening seven safe injection sites between late 2017 and 2019 (Livingston, 2021). However, by March 2020, the provincial government rescinded their support for these facilities and published a report indicating that the sites increased issues with needle debris, community safety concerns were heightened, the facilities had inaccurate data collections, differed on the terms of an overdose reversal, and that opioid-related deaths and calls for Emergency Medical Services continued to increase near the site (Supervised Consumption Services Review, 2020). This report led the government to close all sites that they found were problematic for the community and restructure the policy framework for safe injection sites (Baig, 2021).

No Access

The provinces and territories placed in this category all had no operating safe injection sites between 2016 and 2020, or until late into 2020. The Yukon, Northwest Territories, and Nunavut had no safe injection sites, or any territorial policies that mentioned or defined harm reduction (Hyska, et al., 2017). The main challenge in implementing these facilities in these regions stems predominately from their small population and large geographical coverage. However, these territories have also failed to implement other common harm reduction practices, such as drug checking, safer inhalation kit distribution, or street outreach (Anderson-Baron, Karekezi, Koziel, & McCurdy, 2017). The Yukon was successful in opening its first safe injection site, and the first in all the territories, in September of 2021 (Government of Yukon, 2021).

Like the territories, Manitoba has been unsuccessful in obtaining provincial approval and funding to open a safe injection site. While the discussion to open one has been happening for quite some time and the need to have one is prevalent after paramedics reported a 100% increase from 2019 to 2020 on the number of patients they had treated with Narcan, the discussion of adding safe injection sites is still heavily contested (Snell, 2021). By the end of 2020, Saskatchewan was successful in opening their provinces first and only safe injection site. However, while successful in opening, the site in Saskatchewan has still failed to receive provincial funding, leaving the site vulnerable to closure and forced to have limited hours of operation (Vescera, 2021).

In Atlantic Canada, there are no safe injection sites and policy framework discussing harm reduction is scarce (Hyshka, et al., 2017). The biggest strides in implementing harm reduction practices have taken place in Nova Scotia, who was successful in opening the first overdose prevention site in Atlantic Canada in August of 2020 (Ryan, 2020). Newfoundland and Labrador announced that they were starting the process on opening safe injection sites and overdose prevention sites in May of 2020 (Mullin, 2020) and Prince Edward Island followed suit in March 2021. However, no prior information or timelines have been set in place on when the people in these provinces could expect to see these facilities (Fraser, 2021).

Total Apparent Opioid Related Toxicity Death Rates in 2020

The total apparent opioid related toxicity death rates in 2020 accounted for all recorded deaths that were caused by toxicity resulting from the substance use where one or more of the substances was an opioid (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). This variable had a mean rate of 12.25, a standard deviation of 10.056, and ranged from 2 to 34.

Accidental Opioid Related Poisoning Hospitalization Rates in 2020

The rate of accidental opioid related poisoning hospitalization rates in 2020 accounted for all opioid-related poisoning hospitalizations that were considered to be non-intentional in nature (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). This variable had a mean rate of 9.8, a standard deviation of 6.356, and ranged from 4 to 22.

Total Opioid Related Poisoning Hospitalization Rates in 2020

The total opioid related poisoning hospitalization rates in 2020 included all counts of acute care hospitalizations in a particular province or territory that recorded a diagnosis for opioid related poisoning (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). This variable had a mean rate of 16.10, a standard deviation of 7.795, and ranged from 7 to 31.

Change in Opioid Rates From 2016 to 2020

To account for the change in all potential opioid related incidents from 2016 to 2020, all opioid incidents were tallied for each year and the difference was calculated. This variable had a mean rate of 8.3077, a standard deviation of 18.4182, and ranged between (-9) and 49. Negative rates occurred when a region recorded a lower rate in 2020 than in 2016.

CHAPTER THREE

Findings

After coding the provinces to reflect the regulatory severity, a bivariate correlation was conducted to measure the strength and direction of the linear relationships between the continuous variables. The data presented in Table 2.0 demonstrates that there were three variables of significance. All significant variables had a negative relationship and indicated that as the regulatory severity gets higher, there are fewer apparent opioid related toxicity deaths and

hospitalizations. These findings do not support the hypothesis that regions with safe injection sites would have decreased opioid related toxicity deaths compared to those that were undergoing restrictive policy changes or had not established one at this time.

Table 2.0: Bivariate Correlation

Category	Correlation	Sig. (2-tailed)
Total apparent opioid related toxicity death rates in 2020	-0.550	0.064
Accidental opioid related poisoning hospitalization rates in 2020	-0.720*	0.019
Total opioid related poisoning hospitalization rates in 2020	-0.644*	0.044
Change in opioid incident rates from 2016 to 2020	-0.642*	0.018

Total Apparent Opioid Related Toxicity Death Rates in 2020

The relationship between regulatory severity and the total apparent opioid related toxicity death rates in 2020 was -0.550. This relationship was nearly statistically significant, indicating that despite the lack of safe injection sites and the opioid crisis continuing, there were less apparent opioid related toxicity deaths, indicating that it is at odds with the hypothesis.

Accidental Opioid Related Poisoning Hospitalization Rates in 2020

The relationship between regulatory severity and the rate of accidental opioid related poisoning hospitalization rates in 2020 was -0.720. The rate of accidental opioid related poisoning hospitalizations in 2020 was statistically significant in its correlation to regulatory severity, indicating that it is at odds with the hypothesis.

Total Opioid Related Poisoning Hospitalization Rates in 2020

The relationship between regulatory severity and the total opioid related poisoning hospitalization rates in 2020 was -0.644. This relationship indicates that regions without safe injection sites were less likely to have people be hospitalized due to opioid related poisoning. This relationship is at odds with the hypothesis.

Change in Opioid Rates From 2016 to 2020

The relationship between regulatory severity and the total change in opioid rates from 2016 to 2020 was -0.642. The data demonstrates that this relationship is statistically significant, indicating that this is at odds with the hypothesis as regions with no safe injection sites had a declining rate in overall opioid related incidents.

CHAPTER FOUR

Discussion

This research hypothesized that provinces that were restricting access to safe injection sites, or did not have any at all, would have higher rates of opioid related harms and deaths. However, the key findings from the data have indicated that the hypothesis was not supported and that a region that has less safe injection sites will also have less opioid related harms and deaths. The findings go against the arguments present in the existing literature that find that safe injection sites help to reduce the harms of the opioid crisis.

Safe injection sites serve many positive benefits as supported in the existing literature. It has been found that they encourage the proper disposal of drug paraphernalia (Kral & Davidson, 2017), reduce and prevent needle sharing, disorderly conduct, and street injection, and ultimately reduce the rate of overdose related deaths, hospital admissions, and need for Emergency Medical Services in the community (Mrazovac, et al., 2020). These sites are most effective when they are permitted to operate to their fullest designed intent (Jackson, 2020).

However, the data presented here indicates that it does not matter if the province was significantly altering their harm reduction policy to limit a facilities operation, or they had no harm reduction policy, as these regions have reported lower rates of opioid related incidents.

The first variable, total apparent opioid related toxicity death rates in 2020, accounted for all recorded deaths that were caused by toxicity resulting from the substance use where one or more of the substances was an opioid (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). This nearly significant relationship suggests that regions with no access recorded lower rates because they perhaps faced less problems of opioid use than other regions. This idea is further supported by the statistically significant relationships that were present amongst the accidental opioid related poisoning hospitalization rates and the total opioid related poisoning hospitalization rates in 2020. However, while these rates were lower, there is still a presence of death and hospitalization that are a result of opioid use, and therefore indicates that further action needs to be taken; these incidents could have been prevented or significantly lowered if there was access to a safe injection site.

Substance use is not necessarily harmful for all people who inject drugs or every time they inject drugs, and then for others it can be debilitating and threaten their chance of survival. Because drug addiction is experienced differently by PWID's, there must also be different resources and tools for overdose prevention and treatment if desired (Barnaby, Penn, & Erickson, 2010). Harm reduction encompasses more than addressing the problem of substance use, but also takes into regard the other structural factors that feed their addiction, such as homelessness and mental health issues, and attempts to reach the PWID in an environment that is understanding of these factors, like a safe injection site (Bardwell, et al., 2019).

The last relationship regarding change in rates for each province and territory from 2016 to 2020 was also statistically significant. This finding suggests the indication that perhaps the opioid crisis is no longer being nationally impacted. The crisis only carries on significantly in certain regions, and regions that find themselves less impacted were able to achieve that to some degree due to their restricted or no access to safe injection sites. If this was the case, this would lend support to the NIMBY beliefs that these facilities encourage more people to use drugs, heighten social problems in the area, depreciate local property values (Shanoff, 2019) and ultimately spur public disorder (Smith, 2010).

Despite the findings indicating the rates in change over time were lower in regions with no access, representatives of many of these provinces and territories have since come forward stating that they are considering or are implementing safe injection sites in their province or territory. This highlights the fact that the opioid crisis is in fact still a problem in these regions and must continue to be discussed in a national and regional perspective. Of the nine provinces and territories placed in the third regulatory severity group indicating that they had no safe injection sites, Saskatchewan and the Yukon have since opened safe injection sites (Vescera, 2021; Government of Yukon, 2021), and Manitoba and Atlantic Canada have announced their efforts in trying to implement these facilities in their provinces (Snell, 2021; Mullin, 2020; Fraser, 2021). These results provide an interesting opportunity for future research to re-test the proposed hypothesis in the event that the provinces and territories that have recently committed to or plan on committing to this harm reduction strategy follow through and implement a site model that is conclusive to what is recommended for optimal success. Only when opioid deaths are not a problem can the government have the freedom to not engage in harm reduction.

CHAPTER FIVE

Conclusion

Proponents of harm reduction and safe injection sites have posed the argument that when a provincial or territorial government fails to support the implementation of safe injection sites or significantly restricts its ability to operate, then they should have had an increased rate of opioid related deaths and harms (Pelley, 2019). This research hypothesized that regions that had restricted or no access to safe injection sites would have had reported higher rates of opioid related harms and deaths. After analyzing the data provided in the Statistics Canada September 2021 report on “Opioid and Stimulant-Related Harms in Canada”, it was found that this hypothesis was not confirmed (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). Although the hypothesis is unsupported, there is also the potential that the higher rates of opioid related harms and deaths lead to the increased implementation of harm reduction practices and not the other way around.

The harm reduction approach in Canada has grown in many ways with various practices being implemented, such as overdose prevention sites and free take home naloxone kits, but the practice and the legitimacy of this theory has been debated as provincial governments continue to speak out against safe injection sites (Collins, et al., 2019). Provinces like British Columbia have had a long-standing commitment to these harm reduction practices (Boyd, 2013). Recently, several other regions have come forward announcing their investment or desire to invest in these facilities and practices (Bruemmer, 2018; Government of Yukon, 2021; Ryan, 2020; Vescera, 2021), lending support to the unclear causal mechanism that the presence of opioid related harms and deaths lead to the increased implementation of harm reduction practices. However, the willingness to fully commit to this approach has been wavered in some of the hardest hit regions

of the nation, particularly Alberta and Ontario, who have significantly diminished their commitment to this harm reduction model (Russell, et al., 2020; Livingston, 2021) and battle to find a harm reduction policy approach that is not overpowered by the long-time popular crime control approach (Belzak & Halverson, 2018; Elfein, 2021).

Safe injection sites have battled in finding consensus in the value of their facilities and the role that they seek to serve in society. These facilities have been supported in numerous studies (Kral & Davidson, 2017; Jackson, 2020; Mrazovac, et al., 2020; Lovisotto & Baker, 2021), all indicating that they had the ability to minimize the rate of opioid-related deaths and harms, reduced the spread of infectious diseases, and minimized the use of hospital and Emergency Medical Services required to handle opioid-related issues (Contractor, Imran, Kostopoulos, & Virgilio, 2020; Marshall, et al., 2011; Russel, et al., 2020). Advocates of this approach understand these findings to support them being widely introduced across Canadian communities, however this promotion is not supported across various groups in society, including politicians, health authorities, researchers, law enforcement, and the general public (Bardwell, et al., 2019). This harm reduction approach received much of its criticism out of the perceived notion that these facilities would encourage more people to use drugs, heighten social problems in the area, and depreciate local property values (Shanoff, 2019). This primarily NIMBY ideology has unfortunately been quite successful in persuading others to hold onto these beliefs, despite that fact that they have not been proven in the existing literature (Kennedy et al., 2017; Tempalski, et al., 2007).

While the results of the findings were at odds with the hypothesis, this research was capable in demonstrating the structural problems that lead to substance use disorder and ultimately indicated that the opioid crisis is still a serious problem that every region in the nation

is still facing (Belzak & Halverson, 2018; Hatt, 2022). This crisis was capable of reaching this point from several factors, but particularly from its over-prescribing of opioids and the increased accounts of opioids having been laced with other harmful drugs like fentanyl (Hatt, 2022). This crisis was capable of impacting all levels of society and has left the male and indigenous population at significant risk (Penn, 2020).

It is evident that harm reduction alone will not address the structural problems that lead to opioid-related harms and deaths. However, until these problems, like the overprescribing of opioids and the increased lacing of illicit drugs, are addressed, Canada will not be able to pull its support from harm reduction practices like safe injection sites. Consensus on the value of these facilities and their increase in implementation will arise once there is wider promotion and education on the existing literature, NIMBY and other false perceptions are addressed, collaboration from policy makers, police, and community partners are formed, and a mutual respect for all involved is established.

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