

**Understanding the Effects of Public Health Measures During COVID-19 on People Who Use Opioids
and Service Providers Caring for Them Within Ontario, Canada**

by

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Author's Declaration

"I hereby declare that I am the sole author of this thesis. That is a true copy of the thesis, including any final revisions, as accepted by my examiner. I understand that my thesis made be made electronically available to the public."

Statement of Contributions

Linda Adams was the sole author for Chapters 1 through 6 which were written under the supervision of Dr. Chris Perlman. The author also wishes to acknowledge Dr. Perlman, Dr Heather Bullock, and Dr Carrie McAiney, for their support and contributions to the design, interpretations, feedback and editing throughout this process. The author wishes to acknowledge the contributions of Megan Campbell and Madison Gould for their support and contributions during the design phase of the larger grant and assistance in the interview process.

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Abstract

History has repeatedly demonstrated that during previous pandemics and other large-scale events, certain populations—such as people who use opioids (PWUOs)—have been disproportionately affected, experiencing higher rates of illness and mortality. In Canada, an existing opioid crisis was already underway leading into the COVID-19 pandemic, with Ontario being one of the provinces most affected by accidental opioid toxicity deaths. Several regions within Ontario were experiencing opioid-related mortality rates higher than the provincial average. As COVID-19 unfolded, universal public health measures (PHMs) were rapidly deployed, and circumstances for PWUOs worsened. Canada witnessed a 96% increase in opioid toxicity deaths during the first year of the pandemic; Ontario experienced a 79% increase. These escalating rates were evident in regions such as North Simcoe Muskoka (NSM), where a 70% increase occurred during the same timeframe. Little research has examined the impact of COVID-19 PHMs on PWUOs and their service providers (SPs), or whether these populations were considered during policy-making processes in the first waves of the pandemic.

The aim of this research is to understand the impact of COVID-19 PHMs from the perspectives of PWUOs and service providers (SPs), while also examining the factors influencing policy decisions related to PHMs and their effects on PWUOs and SPs within a region of Ontario, Canada. Qualitative methodologies using interpretive descriptive approaches—specifically reflexive thematic analysis—to develop themes derived from semi-structured interviews with PWUOs and SPs residing within a region of Ontario. An interpretive policy analysis was conducted using the 3I+E framework to elucidate factors influencing policy decisions related to PHMs and their effects on PWUOs and SPs during the first ten months of the pandemic.

Findings from the novel integration of reflexive thematic analysis and policy analysis illuminated the lived experiences of PWUOs and SPs in NSM, revealing the consequences and harms associated with

PHMs implemented in that region. This approach enabled connections to be drawn between the PHMs, and the harms experienced within the North Simcoe Muskoka (NSM) region. Three overarching themes emerged:

1. PHMs worsened conditions for PWUOs residing within NSM;
2. Inequities resulting from the sentiment of the “greater good”; and
3. Failing to learn.

PHMs introduced provincially intensified pre-pandemic disparities in NSM. Issues of rurality, high pre-pandemic opioid toxicity death rates, disrupted health and social services, and a worsening drug supply collectively contributed to deteriorating circumstances and increased opioid-related deaths. Despite prior learnings and recommendations from earlier public health crises, the repeated deployment of universal PHMs without targeted supports contributed to worsening harm for PWUOs and a persistent failure to learn.

Issues of stigma, increased vulnerability, and disparity—and the interplay of a syndemic response—became evident in the themes. Profound vulnerability and disparity were rooted in pre-pandemic conditions, including higher opioid mortality rates and limited resources in NSM, which were further exacerbated by the universal PHMs introduced. The convergence of an underlying opioid crisis, rurality, comorbidities associated with drug use, and worsening social disparity created a syndemic response in which the overall result was escalating harm for PWUOs in this region.

In closing, PHMs implemented during the first wave of the pandemic were perceived to have a negative impact on PWUOs and the SPs attempting to support them. Through detailed policy analysis, it became clear that a specific lens toward PWUOs was not applied when making decisions about the design and implementation of PHMs. This dissertation has important implications for future pandemic responses

related to research, practice, and policy. Ensuring the voices of people with lived experience are included in policy decisions related to urgently needed mitigation strategies, shifts in practices such as virtual care, and the identification of essential services is vital for PWUOs' survival—particularly in rural areas. Before the pandemic, stigma, vulnerability, and disparity were present and intensified with COVID-19 through a syndemic response, resulting in escalating harm experienced by PWUOs over the first ten months of the pandemic. PWUOs were treated as a devalued population, with universal PHMs implemented in ways that excluded them from essential services, failed to account for prior vulnerabilities, and reinforced stigma at individual, institutional, and systems levels. Overall, this research may play an important role in informing and preventing similar responses—and resultant harm—for this population in future public health emergencies. Policy changes are needed to ensure emergency preparedness remains at the forefront, addressing capacity challenges, rurality, and vulnerable populations, especially during times of fiscal restraint.

Acknowledgement

I would like to acknowledge those whose support was critical to me, enabling this journey over the past nine years. It was not an easy journey, at times there were tears, a break due to the pandemic and many other life pressures which come and go distracting from the dedication and purity of academia. My family was my bedrock, providing clarity, stability and at time questioning the “why are you doing this?” This was an important question that grounded me. I had to explain its not for greater opportunities as this was no longer an important aspect at this stage of my career. It was purely for me –the final frontier so to speak of what I wanted to achieve, not because I needed to—rather because I wanted to. As a little girl, I recall thinking of being a researcher. Well, I took a very long and winding road to arrive, but finally did it. Learning has always been important to me; working and ongoing education have been constantly part of my professional career. This bug has bitten my two sons as well. I hope they find joy in it and value. My son and I were in a race to complete our doctoral studies, and he has beaten me while my other son is in the process of furthering his learning. Love you both and I could not be prouder! My spouse is a very patient man—who has been with me through this journey! Love you Benty! For my granddaughters who although not sure why I am studying, have at times missed Nanna because of my studies. My “sista” and nephews have also shared their support for their auntie.

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List of Abbreviations

3I+E — Policy Framework: Institutions, Interests, Ideas, and External Factors

CCSA — Canadian Centre for Substance Use and Addiction

CDC — Centers for Disease Control and Prevention

CIHI — Canadian Institutes for Health Information

CIHR — Canadian Institutes for Health Research

EOC — Emergency Operations Centre

LHIN — Local Health Integration Network

NMB — Non-Medical Benzodiazepines

NSM — North Simcoe Muskoka

OHTs — Ontario Health Teams

PHAC — Public Health Agency of Canada

PHL — Public Health Laboratory

PHMs — Public Health Measures

PHU — Public Health Unit

POR — Patient-Oriented Research

PWUOs — People Who Use Opioids

SP — Service Provider

Statement of Positionality

As a nurse leader who has worked in health care for over four decades—and specifically in a mental health hospital setting for nine years before and during the pandemic—I participated in implementing rapidly changing measures, managing emergency responses including service reductions, and participating in discussions and decisions at local, regional, and provincial levels. I acknowledge that I bring my lived experience, education, clinical background, and the role I played during the COVID-19 response into this study.

As a researcher using interpretive description, I reflected on my positionality throughout the research process as I engaged with and interpreted the data, questioning and making connections. This approach aligns with Thorne’s philosophy of interpretive description, which emphasizes that regardless of the processes to analyze data, it is ultimately the researcher who informs the interpretation (Thorne et al., 1997; Thorne et al., 2004). Thus, I acknowledge that my positionality contributed to and shaped how I interpreted the data. However, through this awareness, I ensured that no undue liberties were taken in my interpretations or findings. Notably, my clinical and personal experiences afforded me insider knowledge, including an understanding of where to locate documents and data, such as through meeting minutes.

I am also a PhD candidate in the University of Waterloo’s School of Public Health Sciences and much of my research preparation occurred during the initial waves of the pandemic. Through this work, the magnitude of worsening conditions among populations affected by mental health and addictions became undeniable. Rates of morbidity and mortality for this group were alarming and not well articulated in any of the pandemic discussions I participated in. I questioned why this existing and worsening crisis was not receiving the same level of alarm as other identified vulnerable populations in Ontario; how decisions were made with respect to this cohort; and how pandemic measures were

contributing to their worsening conditions. This deepened my desire to better understand—and study—this specific population within the region where I worked.

I also acknowledge my role as Principal Investigator in a Canadian Institutes of Health Research Catalyst Grant (Grant #187039): The collateral effects of COVID-19 public health policies: Perspectives of people who use opioids and those closest to them using a patient-oriented research approach within a learning community framework. My initial role as PI was to bring together a collaborative community of co-investigators and people with lived experience to develop and submit the grant proposal, which included two sites: the Centre for Addiction and Mental Health (CAMH) and Waypoint Centre for Mental Health Care. Through the process, three subsequent PIs were identified: Dr. Bernard LeFoll (Waypoint Centre for Mental Health Care), Dr. Sara Ling (Nominated PI, CAMH), and Mr. Graham Woodward (Policy Lead, Mental Health Centre of Excellence, Ontario Health). The submission was successful, and co-investigators led subcommittee working groups to complete four phases of the research project: Research Design, Data Collection and Analysis, Findings, and Policy Brief Knowledge Mobilization. The final output—a policy brief—was completed, presented, and submitted to CIHR.

As a result of my role in this grant, considerable care was taken to ensure that my dissertation research remained distinct and separate from the larger project in the following ways:

1. I removed myself from the grant project during the data collection and data analysis phases.
2. I used a subset of data (PWUO and SP transcripts from the North Simcoe Muskoka region) for my analysis and findings.
3. I used a separate methodology and methods for data analysis. The broader grant used the DEPICT model, a community-based participatory research approach that is highly inclusive of diverse stakeholders with lived experience, not solely academic research teams (Flicker & Nixon, 2014).

For my dissertation, working independently, I chose Braun and Clarke's six-step reflexive thematic

analysis, which recognizes researcher reflexivity and positionality as central to interpreting data.

I also conducted a policy analysis unique to my dissertation, examining the effects of policy decisions regarding public health measures within the NSM region where I had worked during the pandemic.

4. I completed all reflexive thematic analysis and summary of findings from the PWUO and SP transcripts, and only after committee review and approval did, I re-engage with the broader project.

Overall, I was able to contribute to the larger learning community through the grant—leading specific areas—while ensuring that my dissertation research was unique, independently conducted, and supervised by my committee.

Chapter 1: Introduction and Thesis Purpose

1.0 Introduction and Purpose

This dissertation contains a total of six chapters of work, three original research studies that examine the impacts of Public Health Measures (PHMs) introduced during the first ten months of the COVID-19 pandemic on people who use opioids (PWUOs) and those service providers (SPs) caring for them. These impacts were explored at both a macro level (Ontario, Canada) and more local level (North Simcoe Muskoka region). Perspectives gathered from PWUOs and SPs increased understanding of the lived experience of individuals in a specific region of Ontario. Policies examined elucidated and contextualized factors influencing macro-level decisions related to PHMs and the micro-level effects these decisions had on PWUOs and SPs living and working within a region of Ontario.

The focus of this chapter is to provide the background context of the opioid crisis leading into the pandemic, the level of harm PWUOs were experiencing during the pandemic at the federal, provincial, and local levels, and finally the policy levers and decisions with respect to PHMs. For the purposes of this study, the researcher predominantly uses the term opioid crisis and opioid related deaths. The opioid crisis refers to the broad, multi-wave public health emergency shaped by prescribing practices, pain management failures, socioeconomic determinants, polysubstance use, and the expansion of illicit opioid markets over the past two decades (Compton et al., 2020; Ciccarone, 2019, 2021). In contrast, the opioid overdose crisis denotes the acute, mortality-driven phase of this emergency, characterized by the rapid proliferation of illicitly manufactured fentanyl (IMFs), polysubstance use, and an increasingly toxic unregulated drug supply. Ciccarone (2019, 2021) describes the overdose crisis as a subset of the wider opioid crisis, representing its most severe and lethal manifestation. This helps in clarifying the breadth of the crisis, and not a titration or measurement issue leading to overdose. The clarification is important as there are practice and policy implications related to the treatment and drug reversal management

(Compton et al., 2020). Moreover, this distinction is important for understanding how public health measures (PHMs) implemented during COVID-19 contributed not only to service disruptions but also the disruptions to drug markets, which may have contributed to the proliferation of IMFs or were occurring concurrently. The end result being the exacerbation of harm people who use opioids (PWUOs) experienced during this time.

The theoretical framework, methodologies, and the concepts under consideration are discussed, and the chapter concludes with the purpose of the study and the contributions to research.

1.1 Opioids, the Opioid Crisis: The Canadian Context

Opiates, derived from the poppy plant, produce naturally occurring compounds, such as opium, codeine, and morphine (Centers for Disease Control and Prevention [CDC], 2024; McCradden et al., 2019). Opioids are semi-synthetic and synthetic composites created in labs and include oxycodone, heroin, fentanyl, and methadone (McCradden et al., 2019). Although different in origin (natural vs synthetic), both opiates and opioids are classified as narcotic analgesics and both are often jointly referred to as opioids (CDC, 2024; McCradden et al., 2019). Opioids bind to opioid receptors in the brain and spinal cord, producing effects such as euphoria, analgesia, slowed respiration, and decreased heart rate. While these effects make opioids effective for pain management, they are highly addictive (McCradden et al., 2019). Opioid-related morbidity and mortality have become major public health issues in both the United States and Canada during the past two decades (McCradden et al., 2019). Prescribing practices changed in the early 2000s, with new pain management guidelines released in 2002 (Jovey et al., 2003). Canada became the second-highest country in opioid prescribing, second only to the United States, with one in four Canadians prescribed at least one opioid (Fischer et al., 2014, Murphy et al., 2015). These drugs were subsequently removed from all provincial formularies due to their harmful side effects, including rapidly increasing overdoses and addictive properties (Canadian Institutes for Health Information [CIHI], 2017;

Fischer & Wood, 2019). New Canadian guidelines, released in 2017 for chronic pain management, were far more stringent than the earlier version (Busse et al., 2017; Fischer & Wood, 2020). With stricter controls for prescribed opioids and reduced access, an unforeseen consequence emerged: illicit supplies of potent opioids began to thrive (Fischer et al., 2018). Adulterated, synthetic opioids such as fentanyl and carfentanyl became increasingly in high demand, creating exponentially higher risks of overdose than conventional opioids (Fischer et al., 2018). A final contributor to the escalating opioid crisis was the arrival of the COVID-19 pandemic.

From January 2016 to December 2021, more than 29,000 Canadians died from opioid toxicity, an average of 4,833 deaths per year (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022). A total of 7,560 apparent opioid toxicity deaths occurred in 2021 (January–December), which equates to approximately twenty-one deaths per day. Before the pandemic, deaths per day were on the rise but at much lower rates: approximately eight deaths per day in 2016 and twelve deaths per day in 2018 (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022). During the first year of the pandemic, opioid-related hospitalizations increased by 27% (Substance Related Overdoses and Mortality Surveillance Task Group, 2021). From January to June 2021, 88% of the accidental apparent opioid toxicity deaths in Canada occurred in British Columbia, Alberta, and Ontario (Substance Related Overdose and Mortality Surveillance Task Group, 2026). Most opioid accidental deaths occurred in males (74%) in 2021 (Jan-June) aged 20-59 years, and 86% involved fentanyl; 81% involved non-pharmaceutical opioids (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022). For individuals obtaining drugs from the unregulated market, overdose risks were high due to the absence of quality controls and unpredictable drug contents (Canadian Centre for Substance Use and Addiction [CCSA], 2020b). Supply chains were disrupted by border closures and safety measures during the pandemic; increasing susceptibility for consuming adulterated substances (CCSA, 2020b). Concurrently, COVID measures instituted in the country reduced capacity and access to services for PWUOs, making it more

difficult to prevent and treat the consequences of adulterated substances (CCSA, 2020b). Increasingly, benzodiazepines were found in the unregulated opioid supply (CCSA, 2020b). These drugs, called nonmedical benzodiazepines or NMBs, raise considerable concern for the following reasons:

1. Combining NMBs and opioids increases the risk of drug poisoning due to the combined effects slowing vital functions such as breathing, which may be contributing to record-high drug poisoning fatalities (CCSA, 2020b).
2. Drug poisonings involving opioid-NMB combinations are not easy to reverse. Naloxone can reverse the opioid effects and restore breathing but not the sedative effects caused by the NMB. Thus, a person could start breathing but not regain consciousness, complicating emergency response care, and existing protocols (CCSA, 2020b).
3. Tolerance can increase through regular benzodiazepine use. Individuals may unknowingly use NMBs which were mixed/contaminated into other substances, and by discontinuing use, they may unknowingly end their use of NMBs. This abrupt ending of the NMBs can produce benzodiazepine withdrawal, which requires medical management (CCSA, 2020b).

1.2 Opioid Crisis, COVID-19: The Ontario Context

In Ontario, as opioid regulations intensified, prescribing and access to opioids became limited between 2012 and 2016; however, the anticipated reductions in opioid-related deaths did not occur, and fatal opioid overdoses more than doubled (Gomes & Juurlink, 2019). While the rate of long-acting opioid recipients fell in 2015, fatal opioid overdoses increased from 2015 – 2018 by 87%; from 5.3 to 9.9 deaths per 100,000 population (Gomes & Juurlink, 2019). Non-prescribed opioids contributed substantially to this rise, with heroin-related deaths more than doubling (88 to 189 deaths) and fentanyl-related deaths almost quadrupling (218 to 805 deaths) between 2015 and 2017. Synthetic, non-

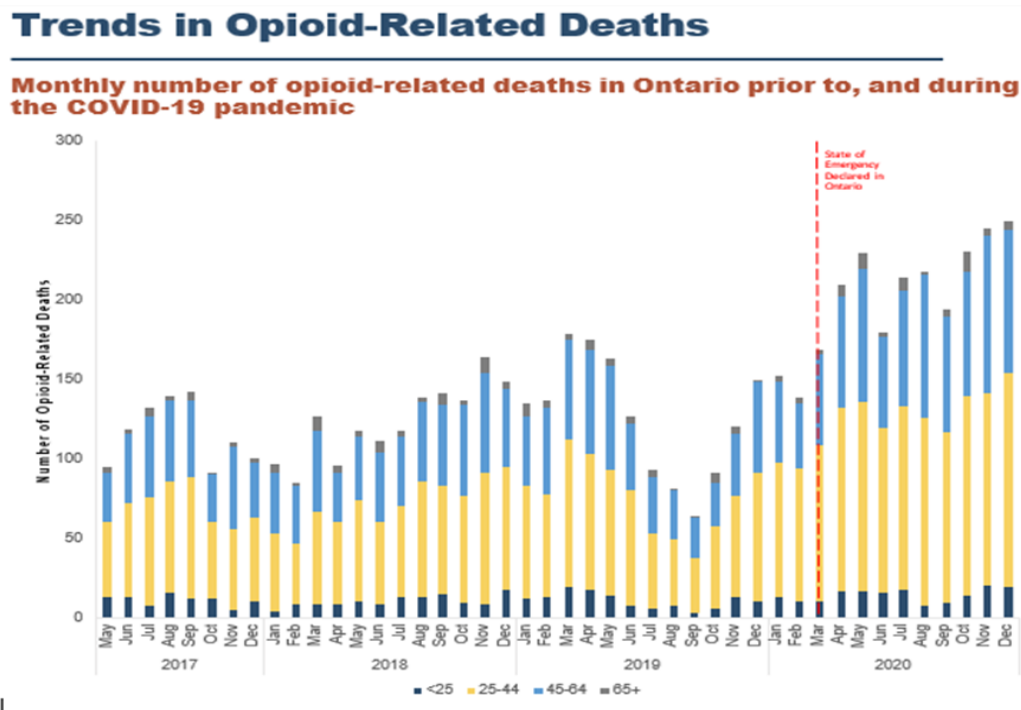
prescribed opioids were increasingly implicated, with fentanyl and fentanyl analogues present in three-quarters of opioid-related deaths between July 2017 and June 2018 (Gomes & Juurlink, 2019).

Leading into the pandemic, COVID-19 intensified an already existent opioid crisis, demonstrated by a significant rise in unintentional deaths (Gomes & Juurlink, 2019; Special Advisory Committee on the Epidemic of Opioid Overdoses,, 2022). Figure 1.1 illustrates opioid-related deaths for the historic and COVID period (Gomes et al., 2021b). A cross-sectional study using multiple data sources (Institute for Clinical Evaluation Sciences [ICES], Drug and Drug/Alcohol Related Death Database, Narcotics Monitoring System), reported on patterns of opioid drugs contributing to toxicity and deaths occurring in Ontario (Gomes et al., 2022). For PWUOs, with COVID-19 issues such as an unpredictable, worsening adulterated drug supply, reduced access to hospital and community services due to limited capacity or service cessation (outpatient services, treatment centres and primary care services) intensified. Issues of limited PPE supplies, depleted staff from illness or redeployment to support assessment centres, long-term care homes (LTCHs) and acute care hospitals created service disruptions (Tam, 2020). In Ontario, new admissions for specialized addiction services decreased by 70%, with concurrent increases in waitlist times due to reduced capacity during the first month of the pandemic (CCSA, 2020b). Between March 16 and December 31, 2020, several trends are notable: Accidental opioid deaths doubled for males, with 79% being among individuals aged 25-44 years; deaths from non-pharmaceutical opioids from unregulated supplies increased from 65% pre-pandemic to 79% during the pandemic (Gomes et al., 2022). During this same time, drug mixing was increasingly problematic, with three of five accidental deaths involving stimulants (44% Cocaine and 27% methamphetamine), and five-fold increase in accidental opioid deaths involving non-pharmaceutical benzodiazepines (Gomes et al., 2022). As the pandemic unfolded in Ontario and Canada, levels of harm continued to escalate for PWUOs. Figure 1.1 below demonstrates this trend.

Illicit drug market shifts increased during the pandemic intensifying opioid-related mortality through the rapid emergence of highly potent illicitly manufactured fentanyls (IMFs). As Canfield and

Sprague (2026) demonstrate, clandestine producers have increasingly modified fentanyl to generate analogs with substantially greater μ -opioid receptor affinity and reinforcing efficacy—such as carfentanil, ocfentanil—resulting in unpredictable potency and extreme toxicity. These innovations have produced street drug supplies that are markedly more dangerous than pre-pandemic opioid markets, enhancing dependency with many analogs exceeding fentanyl’s earlier potency. The proliferation of IMFs represents a parallel and compounding driver of opioid deaths that operated independently or concurrently with, the collateral effects of PHMs. Although the Canfield and Sprague (2026) review does not address why IMF proliferation accelerated during COVID-19, broader literature raises concerns about pandemic-related supply disruptions and market volatility (Mitra et al., 2024; Zolopa et al., 2021). Questions arise regarding the increasing illicit market resulting from efforts by illicit suppliers to maintain market dominance amid safer supply initiatives and opioid agonist treatment (OAT) programs. Regardless of the underlying drivers, the increasingly toxic illicit drug supply constitutes an additional structural factor that interacted with or was heightened by PHMs to exacerbate opioid-related harms

Figure 1.1 *Trends in Opioid Related Deaths*



Note. Reprinted from Gomes T, Murray R, Kolla G, Leece P, Bansal S, Besharah J, Cahill T, Campbell T, Fritz A, Munro C, Toner L, Watford J on behalf of the Ontario Drug Policy Research Network, Office of the Chief Coroner for Ontario and Ontario Agency for Health Protection and Promotion (Public Health Ontario). Changing circumstances surrounding opioid-related deaths in Ontario during the COVID-19 pandemic. Toronto, ON: Ontario Drug Policy Research Network; 2021.

The above illustrates the provincial trends leading into and during the pandemic. Levels of harm varied significantly across the province of Ontario. The rate of opioid-related toxicity deaths was almost three times higher in northern Ontario compared to southern (Gomes et al., 2023a). Rural and non-urban areas experienced disproportionately higher levels of opioid-related harms than southern urban centres, 44.2 opioid-related deaths per 100,000 versus 12.5 per 100,000 (Ali et al., 2025; Thomas et al., 2020).

Health care in Ontario is delivered regionally through 34 Public Health Units (PHUs) and integrated Ontario Health Teams (OHTs). Variable geographic size, population density, and supporting health care infrastructure contribute to service and access variability, especially related to opioid treatment and resources (Ali et al., 2025). Resource and service disparities for PWUOs in rural areas worsened when PHMs were introduced during COVID-19 (Ali et al., 2025). Finally, most opioid-related toxicity deaths in

2021 occurred within private residences (74.5%), followed by rooming houses (14%), with higher rates of toxicity deaths occurring in the lowest income quintile (Gomes et al., 2023a). Further analysis and findings will be provided for a specific region in Ontario—North Simcoe Muskoka (NSM), a rural/urban mixed region in central Ontario.

1.3 Opioid Crisis and COVID-19 in North Simcoe Muskoka

The region, formerly known as North Simcoe Muskoka Local Health Integrated Network (LHIN), is the region of interest for this research, where the implications of policy decisions related to PHMs and the effects of the PHMs on PWUOs and SPs were analyzed. The region consists of a mix of urban and rural centres, diverse demographics, variable population growth rates, and has a population of 599, 169, comprised of twenty-two municipalities, six hospitals, and one PHU (Statistics Canada, 2021).

Pre-pandemic rates of opioid emergency room visits in NSM were on a similar trajectory but at a higher rate than the province of Ontario in the years before the pandemic demonstrated by higher emergency room visits. For 2019, NSM experienced 107 emergency room visits per 100,000 while Ontario was at 85 emergency room visits per 100,000 (Public Health Ontario [PHO], n.d.). In the year before the pandemic (January 2019) within NSM, the region experienced 12.2 per 100,000 opioid deaths which increased to 33.3 per 100,000 in the fall of 2020 compared to 9.4 cases per 100,000 to 6.5 cases per 100,000 in Toronto during the same period (PHO, n.d.).

Mounting concern regarding opioid use in NSM in the years leading into the pandemic resulted in the NSM LHIN and the Simcoe Muskoka District Health Unit (SMDHU) co-hosting a forum, which brought together key interest holders to address opioid misuse in the region. This forum led to the development of the Simcoe Muskoka Opioid Strategy (SMOS) in 2018. The SMOS committee provided oversight for the implementation of the three-year strategy, which focused on four areas: prevention, treatment/clinical practice, harm reduction, and enforcement (Brens et al., 2018; Eisener et al., 2022). The SMOS report,

drawing on data from a variety of sources, provided an overview of the region's opioid struggles and outlined goals to start to guide harm-reduction efforts (Brens et al., 2018). A follow-up report on implementation of the strategies was released in 2022 and demonstrated that although all actions were implemented, opioid related harms did not improve (Eisener et al., 2022). In fact, during the first year of the pandemic, NSM experienced a 70% increase in opioid-related deaths (Eisener et al., 2022).

1.4 Setting the Stage: Shifting Health Policy Priorities and the COVID-19 Context in Ontario, Canada

Pre-pandemic health policy in Ontario, Canada.

In the spring of 2018, a political shift occurred in Ontario, resulting in changing priorities for health spending. The new majority government, focused on fiscal constraint, reduced \$335 million from the Mental Health & Addictions budget (Benzie, 2018). Overdose prevention sites and safe consumption sites were also paused (DiManno, 2018; Government of Ontario, 2018a; Rushowy, 2018). Later that fall, government attention shifted to system-wide health transformation, with new initiatives aimed at reducing strain on hospitals (Government of Ontario, 2018b).

In 2019, Ontario implemented major health care reforms through legislative changes that dismantled existing health care structures and introduced new ones. These reforms created Ontario Health, supported by local structures enacted through the *People's Healthcare Act 2019* (Bill 74) and the *Connecting Care Act 2019* (Ferguson, 2019; Government of Ontario, 2019a, 2019c). Of note, and specific to PWUOs, fifteen new consumption and treatment sites (CTS) were announced in March 2019, however, no sites were located between Toronto and Thunder Bay, Ontario, failing to address geographic disparities in the more northerly regions (Government of Ontario, 2019b). The year ended with two significant legislative acts significantly impacting the administration and staffing of mental health and addictions services:

- Bill 116, Foundations for Promoting and Protecting Mental Health and Addiction Services Act, 2019, which enacted the Mental Health & Addictions Centre of Excellence, a component of Ontario Health (Waypoint Centre for Mental Health Care, 2019a; Ontario eLaws, 2019).
- Bill 124, Protecting a Sustainable Public Sector for Future Generations Act, 2019, which capped public-sector salaries, including health workers, resulting in significant labor unrest and Charter challenges from Unions—including nursing (Benzie, 2019; Legislative Assembly of Ontario, 2019; Macnab, 2021; Waypoint Centre for Mental Health Care, 2019a).

In summary, leading into the pandemic, Ontario's health care system was amid significant transformation, including new legislation, restructuring, new interim leadership, and financial constraints affecting the health workforce (Waypoint Centre for Mental Health Care, 2019b). As a result, the pandemic arrived without fully established structures, which may have contributed to limited preparation and a reactive response. This included the rapid deployment of already strained staff to areas designated as essential for the COVID-19 response, while closing areas considered non-essential, thereby reducing access to services for individuals who relied on these affected services, such as PWUOs.

The COVID-19 context in Ontario. On March 17, 2020, the Government of Ontario declared a state of emergency under s 7.0.1 of the Emergency Measures and Civil Protection Act (EMCPA) due to the new global virus COVID-19 (Government of Ontario, 2020g). The declaration came one week after the World Health Organization declared COVID-19 a global pandemic due to rising case numbers not seen since the 1918 H1N1 influenza (Spanish Flu) pandemic (Crawley, 2020; Ferguson et al., 2020; Ghebreyesus, 2020). Following the declaration, PHMs rapidly escalated throughout the months of March and April (See Appendix A). PHMs severely restricted people's ability to gather and included closures of educational, work, and social venues, as well as isolation, and quarantine measures. The primary intent was to reduce or slow viral spread until vaccines were available (Ferguson et al., 2020; Sebhatu et al., 2020). These

measures meant significant disruptions for PWUOs in Ontario including limited access to treatment and health services; harm reduction services (needle exchange, safe consumption sites); reduced access to shelters and food; disrupted drug markets and drug supplies; increased drug costs, and adulteration (Friesen et al., 2021; Imtiaz et al., 2021; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022; Russell et al., 2021).

Public health measures: Approaches and consequences. PHMs are established tools for managing in infectious disease outbreaks (Ferguson et al., 2020; Mitra et al., 2024; Russell et al., 2021; Sebhatu et al., 2020). Decisions to implement can vary in timing, intensity, and overall magnitude of the interventions, which occurred across Canada and globally during the COVID-19 (Sebhatu et al., 2020). These variations included the timing of actions (or inactions) of other countries; public pressure to act even in the absence of good evidence; leadership styles and perspectives; and concerns regarding liberty (Klein & Begen, 2024; Sebhatu et al., 2020). These provincial level variations occurred in Canada, possibly creating some public uncertainty and confusion related to the most appropriate approaches to pandemic response (Urrutia et al., 2021).

Ontario used two predominant approaches with respect to the PHMs implemented during COVID-19: *Suppression* and *mitigation strategies*. *Suppression*, aimed to lower the reproduction number (R), below 1, reducing cases or eliminating human-to-human transmission as in SARS and Ebola. The approach required PHMs be maintained while the virus circulated, or until a vaccine was available with high efficacy (Ferguson et al., 2020). *Mitigation*, aimed at reducing health impacts of the virus, rather than halting the virus. For example, in the 2009 influenza pandemic in the United States, and initial stages of the 2020 COVID-19 pandemic, vaccines targeted individuals at higher risk due to underlying medical conditions, building population immunity and reducing cases and transmission (Ferguson et al., 2020). The efficacy and negative impacts of PHMs for certain populations have been well documented (Mitra et al., 2024; Russell et al., 2021; Sebhatu et al., 2020). Large-scale events use universal measures for “the greater good”

(Gaynor & Wilson., 2020). Broad universal approaches, focused on the entire population, may fail to meet the needs of certain populations, worsening their circumstances (Gaynor & Wilson, 2020). When universal PHMs were used in Ontario, opioid-related deaths escalated significantly (Gomes et al., 2021a; Mitra et al., 2024; Russell et al., 2021; Zolopa et al., 2021). During the first six months of the pandemic, 1237 individuals died from opioid related deaths in Ontario, an increase from the previous 6 months, with three-quarters of these deaths (1004 deaths) being younger than 54 years of age and representing 49,155 years of life lost (Gomes et al., 2021a). While not causal, the association between the timing of universal measures and escalating deaths highlights the potential adverse impacts of PHMs. Similar patterns have been observed in previous pandemics and public health emergencies with similar negative impacts on people who used drugs (Mitra et al., 2024; Zolopa et al., 2021). Themes from previous events, such as natural disasters, included: worsening mental health; psychological distress associated with social distancing measures and isolation requirements; loss of employment, and disrupted drug supplies and costs (Dunlop et al., 2012; Zolopa et al., 2021). Mitigation strategies, such as flexible service models used post-disaster to facilitate access, could be planned for future events (Pouget et al., 2015; Zolopa et al., 2021). Despite this knowledge, universal PHMs applied repeatedly in Ontario failed to provide targeted approaches tailored to meet the needs of PWUOs and reduce previously known harms (Mitra et al., 2024; Zolopa et al., 2021).

Gaps in evidence and policy lessons. Research has explored the impacts of COVID-19 policy decisions on various vulnerable populations, including children, older adults, health workforce, and individuals experiencing mental health challenges (Badone, 2021; Brophy et al., 2021; Bullock et al., 2022; Gaynor & Wilson, 2020; Klein & Begen, 2024; Lui et al., 2020; Patton et al., 2021; Simone et al., 2021; Tam, 2020). However, few studies have examined the impacts of COVID-19 PHMs on people who use drugs, inclusive of their lived experiences and the factors influencing PHMs which affected PWUOs. Pre-pandemic struggles within the addictions support system increased the risks of COVID-19 infection and spread

among PWUOs. Underlying health issues, combined with social vulnerabilities such as overcrowding and poor housing, created conditions where social distancing and isolation were impossible to implement and sustain (CCSA, 2020a.; Hutchinson et al., 2023; Russell et al., 2021). PHMs led to closures of services including food banks; reduced hours of service; and reduced service volumes due to the inability to maintain socially distancing and meet infection-control requirements (Imtiaz et al., 2021; Russell et al., 2021). Disrupted drug markets and equipment supply issues (e.g., sterile syringe supply) contributed to increased adulteration, riskier behaviours like using alone and sharing supplies (Hutchinson et al., 2023; Imtiaz et al., 2021; Russell et al., 2021). Finally, personal protection equipment (PPE) shortages created transmission concerns for both PWUOs and SPs, caused delays in overdose response, and contributed to service closures due to limited or no PPE supplies (CCSA, 2020a.; Russell et al., 2021).

Governments needed to weigh the consequences of PHMs timing and duration. Delayed action risked viral spread and health system overwhelm; ending PHMs too early risked subsequent waves (Klein & Begen, 2024; Sebhatu et al., 2020). Decisions related to PHMs have significant impacts both for social (worsening mental health, lockdown fatigue), and economic wellbeing. As a result, countries needed to consider their epidemiological and unique situations before implementing PHMs. Sebhatu et al., (2020) found that 80% of Organization for Economic Co-operation and Development countries adopted the same PMHs within two weeks, not due to uniform exposure or best evidence, but likely due to imitation, resulting in premature adoption and prolonged social and economic costs (Sebhatu et al., 2020). While imitation may have factored into the timing of PHMs in certain countries/regions, there were examples of targeted policy decisions for vulnerable groups. In the United States, federal and state policy changes reduced impediments to opioid treatment services, including relaxed telemedicine regulations; changes to prescribing to facilitate take-home methadone reducing in-person visits (LeBeau et al., 2024; Perez-Chique et al., 2021). The Substance Abuse and Mental Health Services Administration (SAMHSA), on March 16, 2020, exercised exemptions to 42 Code of Federal Regulations (CFR) part 8, which enabled

initial buprenorphine prescriptions to be provided without an in-person evaluation, and the flexibility to dispense 14- to 28-day take home methadone supplies (LeBeau et al., 2024). In addition, in some states designated substance-use services as essential, ensuring direct care staff had access to PPE and safe distancing requirements.

Chapter 4 explores factors influencing policy decisions related to the PHMs in Ontario, how these policies were implemented at a regional level, and how they affected the PWUOs and their SPs within that region.

1.5 Methodological Approach: Interpretive Description

Methodologies are organized and result from overarching research philosophical positions, or ontological and epistemological assumptions (Giacomini, 2010). Methods are constrained by these overarching assumptions and must be congruent with them. The type of knowledge sought through the research questions determines the philosophical position and the resultant methodology, the framework to organize the research, and the methods selected for data collection and analysis (Braun & Clarke, 2013; Giacomini, 2010). Ontological positions concern the nature of reality. Reality may be viewed as existing separately from human influences, known as realism, or being entirely influenced by human interpretations, known as relativism/idealism (Braun & Clarke, 2013). Epistemological approaches flow from the ontological position, regarding what constitutes meaningful and legitimate knowledge and how such knowledge becomes known (Braun & Clarke, 2013; Giacomini, 2010). Giacomini (2010) provides an illustration depicting the organization of these assumptions, illustrating the framework, and supporting methodologies which the researcher found helpful.

This thesis embraced a pragmatic epistemology which is situated between realist and idealist ontologies, and as the title suggests, the research focuses on practical problems to find practical actions

and solutions (Giacomini, 2010). The approach enabled the researcher to use methodologies to interpret the perceptions and lived experiences of PWUOs and the SPs regarding PHMs; use interpretive policy analysis to explore how social and political factors influenced PHM policy decisions affecting PWUOs and SPs with the aim of actionable findings (Giacomini, 2010; Green & Thorogood, 2018; Renjith et al., 2021; Thorne et al., 2004; Yanow, 2007). Interpretive description, situated within pragmatic epistemologies, provides the researcher with flexibility with methodologies, the researcher used qualitative methodologies congruent with this theoretical approach (Braun & Clarke, 2013; Giacomini, 2010; Thorne et al., 1997; Thorne et al., 2004). Based on the research aims, the nurse researcher applied interpretive description to understand the health harm being experienced by PWUOs and SPs from their lived experiences. The researcher interpreted the participants' perspectives and policy implications using reflection and inductive analysis to illuminate meaning from the experiences, to provide practical findings to inform nursing knowledge, practices, and public health policies (Thorne et al., 2004). A key philosophical element of this approach, which the researcher embraced, was the researcher's understanding that her background and experiences shaped her engagement and interpretation of the data (Thorne et al., 2004). The first two research studies used Braun and Clarke's (2013) reflexive thematic analysis to inductively develop patterns of meaning and themes from the interview transcripts, which resulted from the semi-structured interviews. Through reflexive thematic analysis, the researcher focused on the participants' experiences, perspectives, and behaviours (Braun & Clarke, 2021, 2022). Through immersion, coding and as themes and subthemes were iteratively and inductively developed, the researcher chronicled reflections, areas of surprise, linkages to research questions and aims, areas of commonality, and areas of future research & policy implications through detailed annotations and journaling. These reflections challenged and contributed to the researcher's interpretation of the transcripts and resultant themes. Congruent with interpretive assumptions, the researcher's perspectives and positionality, captured through her journaling, informed her interpretations and resultant themes

and findings of this study (Creswell, 2014; Giacomini, 2010; Thorne et al., 1997; Thorne et al., 2004). The third research study used qualitative methodology, applying interpretive description from a pragmatic orientation, applying the 3I+E framework to organize and interpret factors affecting PHM policy decisions (Lavis et al., 2002; Lavis et al., 2012). The researcher LA acknowledged her positionality throughout this process.

Statistical data and reports depicting rapid escalation of accidental opioid deaths during the pandemic were reviewed and included within this thesis. This data provided initial evidence prompting the researcher's deeper exploration from those directly impacted. The research questions were developed to understand how PWUOs and SPs perceived and experienced harm demonstrated statistically, and how these harms related to PHMs deployed during this period, resulting in the application of qualitative methodology. The researcher's decision to conduct a policy analysis resulted from reviewing statistical data, public records/documents, and her experiences participating in COVID-19- committees. The researcher sought to understand possible political and social factors influencing PHM policy decisions and their consequences on the population of interest (Green & Thorogood, 2018). The policy analysis adopted a pragmatic stance to explore the research objectives (Braun & Clarke, 2013; Giacomini, 2010; Yanow, 2007). Interpretive policy analysis was grounded in the documents reviewed; the researcher acknowledges that interpretations were informed by her experiences, captured through detailed journalling (Giacomini, 2010; Yanow, 2007).

A Patient Oriented Research (POR) approach was used in the larger, two-site catalyst grant to build collaboration and engagement of participants, PWUOs and SPs. PWUOs and SPs, participated in the research design, data collection, data analysis, development of themes and findings (Dell et al., 2022). By design, the POR framework embraced principles of equity, inclusiveness, support, mutual respect, and co-design as partners in the research (CIHR, 2019; Donald et al., 2022). This approach required involving

people with lived experience, PWUOs and SPs in all aspects of the research project, including conception, design, implementation, knowledge translation (including CIHR presentation) of this project (CIHR, 2019; Donald et al., 2022). During the first stage of the studies, people with lived experience, referred to as peer advisors, and service providers, who identified as using opioids (and other substances) or cared for PWUOs, were recruited as partners in the research process. Two peer advisers were recruited from the Patient/Client and Family Council of a large mental health hospital and the local community within North Simcoe Muskoka; two service providers were also recruited from community agencies. The peer advisors were part of the leadership committee and actively participated in all aspects of the Catalyst research project. Research design and planning received approval from the Research Ethics Board (REB) at Waypoint Centre for Mental Health Care, Centre for Addictions and Mental Health, and the Office of Research Ethics at the University of Waterloo (REB# 46241). Once this was completed, interviews commenced again with the assistance of peer advisors. The peer advisors participated in the data analysis subgroup, using the DEPICT framework to develop themes (Flicker & Nixon, 2014). The grant output was a policy brief, which was successfully developed, presented, and submitted to CIHR, again with full participation of peer advisers and SPs. As provided earlier in the researcher's positionality statement, all areas of her research were conducted independently from the larger Catalyst grant, acknowledging the transcripts were informed by the larger grant's design, such as recruitment, sampling and interview questions. All transcript coding, thematic analysis, and findings, and implications were conducted independently by the researcher in collaboration and consultation with her dissertation committee.

The following section focuses on theoretical constructs considered to be important, and through the research of this thesis, the researcher wanted to determine if the themes and findings illuminated the presence of these constructs.

1.6 Theoretical Constructs

Stigma. Within society, stigma has played a significant role in long-standing inequities with addictions (Bambra et al., 2017; Canadian Civil Liberties Association, 2017). Stigma is the negative attitudes (prejudice), and behaviours (discrimination) directed towards PWUOs, and individuals with mental health concerns (Government of Canada, 2024a; Canadian Civil Liberties Association, 2017). Stigma surrounding substance misuse occurs individually, institutionally, and systemically, which has resulted in legal punishment, delayed policy, limited funding, and the absence of clinical response towards people who use drugs (McCradden et al., 2019). Stigma involves stereotyping, labelling, separation, loss of status, discrimination, and social stratification (CDC, 2024; McCradden et al., 2019). A scoping review by McCradden et al. (2019) identified 49 articles, which generated four main themes associated with stigma and opioid use: (1) opioid agonist therapy (OAT)-related stigma, including beliefs that OAT simply replaces one addiction with another, leading to feelings of low self-esteem and being viewed similarly to people who use illegal drugs. Some health-care providers also believe OAT is not a legitimate treatment but a cheap “high,” contributing to shame and lack of support; (2) stigma related to opioids for chronic pain, where people who experience pain feel discomfort and guilt using opioids due to associations with “addiction”; (3) stigma in health-care settings, where a general lack of trust exists between PWUOs and those who prescribe or provide opioids; and (4) self-stigma, which occurs when societal views are internalized. The themes demonstrate the complexity of opioid use and the harmful impacts of stigma – all relevant when exploring the impacts of stigma in policy and health system decisions related to opioid treatment and services during the pandemic. Structural stigma enacted through policies, laws, and cultural norms constrains stigmatized individuals and prevent their ability to thrive in society, creating population health inequities (McCradden et al., 2019). As the pandemic began, finite resources and supports were further constrained for PWUOs. For PWUOs who were in treatment or seeking treatment,

access to care became even more limited. This raises important questions about whether stigma influences policy and practice decisions.

Vulnerability and disparity. Vulnerability and disparities for PWUOs were a reality before the pandemic due to pre-pandemic harm, inequities, and stigma associated with drug use. Vulnerable populations are social groups at increased risk of adverse health outcomes as shown by increased morbidity, mortality, and poor quality of life (Flaskerud & Winslow, 1998). Grabovschi et al., (2013) expanded this definition as “an increased susceptibility to health and health care disparities due to a combination of individual and environmental factors” (Grabovschi et al., 2013, p. 3). The addition of individual factors expands the concept of vulnerability to include characteristics resulting from internal congenital (genetics, race, gender) or attained (diseases, lifestyle, or trauma) characteristics, which provide a broader definition (Grabovschi et al., 2013). Grabovschi et al. (2013) also described the Inverse Care Law phenomenon, noting the relationship between multiple vulnerabilities and care disparities. Specifically, individuals with multiple vulnerabilities are at increased risk of care disparities, identifying a positive relationship between the concept of health disparity and vulnerability (Grabovschi et al., 2013). Health disparity, refers to inequality in quality of care, access to care, health status, and health outcomes, are measured by incidence, prevalence, mortality, burden of disease and other adverse health events (Braveman, 2014; Nyamathi et al., 2007). Health equity is the antithesis to health disparity, by committing to reduce and eliminate disparities in health and in its determinants, including social determinants (Braveman, 2014). Pursuing health equity means “striving for the highest possible standard of health for all people and giving special attention to the needs of those at greatest risk of poor health, based on social conditions” (Braveman, 2014, p. 6).

Syndemic theory. With the COVID-19 pandemic, PHMs created another layer of concerns for PWUOs, already experiencing harm. Syndemic theory describes multiple risk factors interacting synergistically to increase vulnerability and worsen outcomes (Mendenhall et al., 2021; Singer & Clair, 2003). Syndemic

theory is a concept familiar to public health, health social sciences, and medical researchers, which refers to the dangerous interaction of two or more diseases with social conditions in a population, leading to worse health outcomes (Mendenhall et al., 2021; Singer & Clair, 2003). The term was formed by uniting “synergy,” meaning the interaction of two or more entities, and “emic,” a public health term meaning ‘on the people’ (Singer & Clair, 2003). Understanding how pre-pandemic harm, vulnerabilities and disparities experienced by PWUOs interacted with COVID -19 PHMs, which further reduced access to service, are important concepts to consider with respect to the high mortality rates observed for PWUOs. If this relationship existed, understanding the interplay of these factors is important to understand and be addressed in future policy and practice changes.

1.7 Literature Review

An integrated literature review was conducted to identify theoretical, qualitative, and quantitative research relevant to the aims of this thesis. Each research chapter outlines specific search engines, key terms, inclusion and exclusion criteria. The main search engines were the University of Waterloo library system, CINAHL, PubMed, Scholars Portal Journals, CRSN Elsevier Journals, and Google Scholar. The search was extensive, with no initial date ranges to capture previous pandemics, measures used, levels of harm, and to review foundational theory and concepts. The search later focused on the two years leading into the pandemic and five years of the pandemic (2025).

Abstracts were reviewed for relevance; when aligned with the research aim and objectives, full texts were reviewed. If concerned about methodological quality, or if the source was not a primary source, the articles were not included. If conflicting evidence was found, both perspectives would have been captured. This did not occur during the review of the literature. Literature was entered into a reference management system, Mendeley, for organization, tracking, and bibliography purposes. Articles considered as priority were designated with a star for ease of reference.

Articles regarding the lived experiences of PWUOs and SPs were available but limited in terms of location within an urban/rural setting and specific to SPs working with PWUOs. No articles were found using a POR approach. Peer-reviewed articles and reports were available regarding service restrictions, impacts of PHMs, and harms experienced by PWUOs, but limited from a lived experience perspective (Ali et al., 2021; Russell et al., 2021; Gomes et al., 2021a; Gomes et al., 2021b; Gomes et al., 2022). From a lived experience perspective, articles were found regarding harms experienced and were helpful to identify assorted services effected, practice changes to assist access, but all were in large urban centres; or not in Canada, and used various qualitative approaches (Conway et al., 2022; Galarneau et al., 2021; Kelly et al., 2022; McCann et al., 2022; Watson et al., 2022). Also, policy analyses were limited regarding PHMs, factors influencing PHM policy decisions, or the impacts on PWUOs and SPs living within an urban/rural setting. One chapter analyzed various policy decisions related to school closures, comparing countries using several policy frameworks to identify factors and effects specific to children (Bullock et al., 2022). Literature combining both approaches of lived experiences and factors influencing policy decisions were not evident at the time of the search.

1.8 Identified Research Need

History has repeatedly demonstrated in previous pandemics, Spanish Flu (1918-1919), H1N1 (2009), and other large-scale events, certain populations such as PWUOs have been disproportionately affected, as evidenced by higher rates of illness and mortality (Mitra et al., 2024; Tam, 2020; Zolopa et al., 2021). As discussed previously, Canada was already amidst an existing opioid crisis, with Ontario being one of the most affected provinces. Certain regions, including NSM, experienced higher than provincial rates of opioid-related deaths (Eisener et al., 2022; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022). As the initial waves of COVID-19 unfolded, these statistics worsened. The Public Health Agency of Canada reported a 96% increase in opioid toxicity deaths between April 2020 and March 2021, compared to the previous year (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022),

Ontario witnessed a 79% increase in the number of opioid-related deaths (Gomes et al., 2021b), and North Simcoe Muskoka witnessed a 70% increase during the same timeframe (Eisener et al., 2022).

COVID-19 was declared a global pandemic by March 2020, and governments rapidly employed universal PHMs to contain and mitigate spread, conserve limited personal protective equipment (PPE), protect finite hospital resources, and protect the most vulnerable (Farley et al., 2021; Friesen et al., 2021; Gaynor & Wilson, 2020; Tam, 2020). Directives, orders, guidelines (see Appendix A) were issued to support and enforce PHMs to “flatten the curve.” These measures, however, did not include targeted measures for PWUOs, who were already experiencing increased harm from a known opioid crisis, plus a known history of being disproportionately impacted during large scale events (Gaynor & Wilson, 2020; Mitra et al., 2024; Zolopa et al., 2021). In Ontario, pre-existing issues of service access and limited resources for PWUOs were further exacerbated (Ali et al., 2025; Hutchinson et al., 2023; Thomas et al., 2020). As the pandemic evolved, newly introduced PHMs interrupted existing addiction services through closures, reduced service hours, isolation requirements, and transportation disruptions (CCSA, 2020b; Hutchinson et al., 2023). For certain urban/rural areas in Ontario already struggling with limited access and resources, the PHMs worsened existing barriers to service access and contributed to increased mortality (Ali et al., 2025; Brens et al., 2018; Hutchinson et al., 2023; Thomas et al., 2020).

While the statistics were alarming and clearly demonstrated profound worsening in mortality and morbidity for PWUOs during COVID-19, the statistics were overlooked during the initial stages of the pandemic. The lived experiences of PWUOs and SPs living within an urban/rural region of Ontario illuminated what occurred, how they were impacted, survived, and what enabling and disabling strategies and practices were implemented. From a policy perspective, gaps existed in understanding the factors influencing PHM decisions and how these decisions affected PWUOs and those SPs. Research combining lived experience with policy analysis was limited, providing a novel opportunity to generate new knowledge. The aim was to help inform future pandemic responses and avoid repeated actions, or

inaction, which potentially increased harm for PWUOs and their SPs within an urban/rural region in Ontario. The research considered the concepts of stigma, vulnerability, disparity, and syndemic theory when developing themes resulting from thematic analysis and policy analysis.

1.9 Research Aim and Approach

The purpose of this thesis was to generate new knowledge regarding factors influencing policy decisions regarding PHMs and the effects of PHMs on PWUOs and their SPs within an urban/rural region of Ontario during the first ten months of the COVID-19 pandemic. The goal was to generate new knowledge to inform future pandemic practices and policies specific to PWUOs and SPs caring for them living within urban/rural areas of Ontario. To achieve this, three overarching objectives, each addressed in a research chapter, guided this body of work:

1. To explore how SPs caring for PWUOs described the effects of PHMs introduced during this time within the NSM region of Ontario.
2. To explore how PWUOs described the effects of PHMs introduced during this time within the NSM region of Ontario.
3. To elucidate and critically examine factors influencing policy decisions related to the PHMs introduced at provincial and regional levels, and the impacts of these PHMs had on PWUOs and SPs caring for them.

This dissertation contains six chapters. Chapter 1 (this chapter) establishes the context and background to demonstrate the need for this research. Chapters 2-4 present the three research studies addressing the three objectives. Chapter 5 presents the overarching themes and implications for practice, policy, and research. Chapter 6 provides the conclusion. Table 1.2. outlines the chapters, study objectives, design, and outputs/implications for each chapter.

Table 1.1

Outline, design, and potential implications of this dissertation.

Chapters	Study Objective	Design	Outputs/Implications
2	To elucidate perceptions of Service Providers who cared for PWUOs regarding PHMs during the first ten months of COVID-19 in a Region of Ontario, Canada	An interpretive description approach using semi-structured interviews to generate data through Braun and Clarke's (2013) reflexive thematic analysis approach. A patient-oriented research approach (POR) where service providers were active in the co-design of the project	Novel approach to increase body of evidence through qualitative methodology to inform practice and policy changes in future emergency responses to reduce harmful effects of PHMs for SPs and PWUOs they supported living in an urban/rural region of Ontario
3	To elucidate perceptions of PWUOs regarding the effects of PHMs during the first ten months of COVID-19 in a region of Ontario, Canada	An interpretive description approach was applied, using semi-structured interviews to generate data using Braun and Clarke's (2013) reflexive thematic analysis approach. Patient Oriented Research (POR) helped collaboration and engagement with participants, PWUOs, by including them in the research design and data collection	Novel approach to increase body of evidence through lived experience and qualitative methodology to inform future pandemic response and inform mitigation strategies to support PWUOs living in an urban/rural region of Ontario
4	1. To outline chronology of PHMs introduced in first ten months of pandemic affecting PWUOs and SPs in Ontario and NSM. 2. To elucidate factors influencing policy decisions related to PHMs used during this timeframe in Ontario and NSM and effects on PWUOs and SPs caring for them.	The descriptive analysis provided a chronology of PHMs in Ontario/NSM. Second, an interpretive description explored the research objectives. Using interpretive policy analysis - specifically the 3i+e framework to analyze and interpret relevant policy documents, their meaning also acknowledged that the researcher added meaning to the analysis of the documents	Unique contribution to policy research regarding what factors influenced policy decisions and how these policy decisions affected PWUOs and SPs in a specific urban/rural region in Ontario during an emergency response in the Province of Ontario to help inform policy decisions in future pandemic responses in Ontario.
5	To synthesize themes from the three research chapters to elucidate common themes associated with the PHMs, harm and policy decisions, providing implications for practice, policy, and research	Synthesis of findings, applying theoretical concepts of stigma, vulnerability/disparity, and syndemic theory. Interpretive application of findings into practice, policy, and future research to inform pandemic responses	Unique contributions to framing findings within concepts to increase/illuminate understanding related to harms experienced and implications for future pandemics
6	Provide conclusions	Synthesis and summary of research objectives	

Chapter 2: Perceptions of Service Providers who cared for People Who Use Opioids Regarding Public Health Measures during the first ten months of COVID-19 in a Region of Ontario, Canada

2.0 Introduction

The COVID-19 pandemic placed a significant toll on a health care workforce that was already under considerable strain. In the months preceding the pandemic, two major events were unfolding in Ontario, Canada. First, the provincial health care system and its workforce were experiencing substantial turmoil. Health care transformation was underway, with new structures, leadership, and processes resulting from Bill 74, The People's Health Care Act (April 18, 2019) (Ferguson, 2019; Government of Ontario, 2019a; Ontario eLaws, 2019; Waypoint Centre for Mental Health Care, 2019a). At the same time, significant labour unrest emerged following Bill 124, Protecting a Sustainable Public Sector for Future Generations Act (November 7, 2019), which introduced salary caps on public sector compensation, including health care workers (Benzie, 2019; Bullock et al., 2020). Provider workload pressures, stress, burnout, and strained hospital capacity were well documented leading into the pandemic (Devlin, 2019; Financial Accountability Office of Ontario, 2020; Health Quality Ontario, 2018; Rubin et al., 2021). As the pandemic progressed, levels of stress, burnout, and fear of exposure to themselves or their families increased. High levels of attrition occurred, and predictions suggested that ICU and hospital beds could be overwhelmed within weeks under worst-case COVID-19 scenarios (Barrett et al., 2021; Brophy et al., 2021; Financial Accountability Office of Ontario [FAO], 2020; Ontario COVID-19 Science Advisory Table, 2021; Orr et al., 2025; Rotenstein et al., 2022; Rubin et al., 2021; Tabour et al., 2022).

The second major event unfolding in Canada was the escalating public health crisis related to rising opioid-related deaths (Gomes et al., 2023a; Imtiaz et al., 2021; Ledlie et al., 2024; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022; Russell et al., 2021; Spencer et al., 2023; Watson et al., 2022). Opioid-related deaths in Canada doubled between 2019 and 2021, with Alberta, British

Columbia, and Ontario accounting for 88% of all deaths (Ledlie et al., 2024; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022). Certain regions within Ontario, such as Simcoe Muskoka, experienced higher-than-average opioid poisoning rates (78.6 per 100,000 compared to the provincial rate of 55.8 per 100,000) (Benz et al., 2018).

Although harm reduction interventions—such as naloxone distribution programs, overdose prevention sites, drug-checking technologies, and opioid agonist therapy (OAT)—had been implemented to address the crisis, slow rollout, service variability, and unequal geographic distribution hindered a comprehensive response (Schmidt et al., 2024; Strike & Watson, 2019). The opioid crisis was further compounded during COVID-19 due to service disruptions and barriers created by public health measures (PHMs) intended to reduce viral transmission and a worsening drug supply (Imtiaz et al., 2021; Gomes et al., 2021b; Russell et al., 2021; Schmidt et al., 2024).

2.1 The Ontario Context

On March 17, 2020, Ontario declared a state of emergency under section 7.0.1 of the Emergency Measures and Civil Protection Act (EMCPA). Public health measures were implemented rapidly to reduce viral transmission and prevent overwhelming the health care system until vaccines became available (Farley et al., 2021; Ferguson et al., 2020; Friesen et al., 2021; Gaynor & Wilson, 2020; Government of Ontario, 2020a; Sebhatu et al., 2020; Tam, 2020). Numerous closures and restrictions were enacted, making many health and social services inaccessible to people who use opioids (PWUOs) and individuals experiencing homelessness (Kolla et al., 2024; Russell et al., 2021). Hospitals and health care agencies activated pandemic plans, shifting resources and staff to support the COVID-19 response. This included rapid expansion of hospital and ICU bed capacity, creation of temporary structures and assessment centres, and increased testing and contact tracing (Financial Accountability Office of Ontario [FAO], 2020;

Ontario Hospital Association [OHA], 2020h; Government of Ontario, 2020k). Multiple directives (Directives 1–5), including orders, recommendations, requests, technical reports, and guidelines, were communicated quickly through various authorities (see Appendix A). The directives ordered immediate changes to support the COVID-19 response. Directive #2, issued by Ontario’s Chief Medical Officer of Health on March 19, 2020, ordered the cessation of all non-essential surgeries and elective activities (OHA, 2020c). The directive lacked clarity regarding what constituted “non-essential,” leaving interpretation to clinicians and likely resulting in variability and potentially value-based decisions about essential care. Addiction-related services were significantly disrupted due to closures of treatment and rehabilitation beds, outpatient programs, and social services. Staff were redeployed to essential services to meet increased demands created by expanded capacity (Friesen et al., 2021; Imtiaz et al., 2021; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022; Russell et al., 2021; OHA, 2020i). Many service providers working in addiction treatment were reassigned or focused on withdrawal management due to isolation requirements and limited access to substance-use supports (Kolla et al., 2024).

Public health measures also led to closures or reduced hours of food banks, libraries, health services, pharmacies, harm reduction sites, and treatment clinics due to distancing and cleaning requirements (Imtiaz et al., 2021; Russell et al., 2021). Limited personal protective equipment (PPE) further compounded access issues, with concerns raised publicly regarding PPE availability and quality (Crawley, 2020; Government of Canada, 2020a; Ontario Health, 2020a, 2020b). Delayed PPE orders for community agencies resulted in suspended or closed health and social services, including addiction-related supports (Office of the Auditor General of Ontario, 2021a, 2021b; Ontario Health Mental Health & Addiction COVID-19 Response Table, 2020, March 26).

Legislation introduced under EMCPA on March 21, 2020, permitted staff deployment across locations, including COVID assessment centres, and allowed changes to assignments and schedules,

cancellation of vacations and leaves, and superseding of collective agreements (Government of Ontario, 2020i; OHA, 2020e). Staff were redeployed without recourse, increasing stress and contributing to a sense of disempowerment.

2.2 Simcoe Muskoka Context

Simcoe Muskoka, located in central Ontario, Canada, is a large geographic region with a population of 599,169 residents (Simcoe Muskoka District Health Unit [SMDHU], 2020). The region includes both urban and rural communities with several medium city centres (Barrie and Orillia) and large rural areas consisting of 22 municipalities (Statistics Canada, 2021). Within this region, there are six hospitals (five acute-care hospitals and one large mental health hospital), and one Public Health Unit. As COVID-19 became predominant in the early months of 2020, local hospitals enacted Emergency Operation Centres (EOCs) (Waypoint Centre for Mental Health Care, 2020d; Simcoe Muskoka District Health Unit, 2021). EOCs enacted pandemic plans, coordinated hospital responses, and oversaw evolving provincial directives, guidelines, and technical reports. They worked closely with the Public Health Unit to support consistent interpretation and implementation across the region.

The first COVID-19 death in Ontario, announced March 17, 2020, occurred within a Simcoe Muskoka hospital, on the same day the province declared a state of emergency (Simcoe Muskoka District Health Unit, 2021). Consistent with Ontario, Simcoe Muskoka closed non-essential beds and services, established new assessment centres and temporary structures in two cities in early April 2020 (Simcoe Muskoka District Health Unit, 2021; OHA, 2020h). On April 8, 2020, the only concurrent disorder beds located within the mental health hospital in Simcoe Muskoka closed to facilitate social distancing requirements, and staff were redeployed to support newly opened isolation beds (Waypoint Centre for Mental Health Care, 2020d). Other health and social services, such as harm reduction programs, addictions and treatment services, and other community agencies, experienced service closures and

reductions to comply with PHMs (Simcoe Muskoka District Health Unit, 2021). Staff in Simcoe Muskoka faced challenges related to staffing shortages, redeployment to support additional capacity, and limited access to personal protective equipment (PPE). Community agencies reported delays in receiving PPE, which led to service interruptions and increased stress among frontline workers (Office of the Auditor General of Ontario, 2020a, 2021a, 2021b; Ontario Health Mental Health & Addiction COVID-19 Response Table [OHMH&ART], 2020, March 26). The combination of high opioid-related harms and pandemic-related service disruptions produced a complex environment for service providers delivering care to PWUOs during the first ten months of COVID-19.

2.3 Research Approach

Research has demonstrated the pandemic and the use of broad sweeping PHMs had a negative impact on the health workforce that was already experiencing strain, turnover, and stress entering the pandemic (Brophy et al., 2021; Gajjer et al., 2021; Linzer et al., 2022; Orr et al., 2025; Rubin et al., 2021; Voth et al., 2022). However, little is known about how SPs working with PWUOs experienced COVID-19 PHMs, particularly within rural settings. This study examines how SPs working with PWUOs within the region of North Simcoe Muskoka (NSM) experienced PHMs during the first ten months of the pandemic to answer the following questions:

- a. How did the SPs of PWUOs in NSM experience the impacts of non-essential service reductions and social distancing during the first ten months of the pandemic?
- b. How did SPs in NSM perceive the impacts of service reductions and social distancing on PWUOs?
- c. What factors did SPs in NSM perceive as influencing access to services and opioid use during the pandemic?

2.4 Methodology

This study examined the perceptions of SPs who cared for PWUOs during the first ten months of the COVID-19 pandemic in a region of Ontario, Canada. A qualitative interpretive description (ID) methodology guided the study design, data collection, and analysis. ID is well suited for applied health research because it supports the development of practice-relevant insights grounded in participants' experiences and contextual realities (Thorne et al., 1997, Thorne et al., 2004).

Study design & planning. The study, using qualitative ID methodology, explored the research objectives (Braun & Clarke, 2013; Giacomini, 2010). The focus was to understand the SPs' perspectives regarding how the PHMs affected themselves, their perceptions of the impacts of PHMs on PWUOs, and factors influencing access to services and opioid use with the aim of informing future pandemic responses (Braun & Clarke, 2013; Giacomini, 2010; Green & Thorogood, 2018; Thorne et al., 1997; Thorne et al., 2004). A pragmatic stance and use of interpretative description (ID) enabled the researcher to interpret the perspectives of SPs, while reflecting on her own experiences as she iteratively reviewed, interacted, and questioned the data – seeking multiple truths and connections. In alignment with Thorne's philosophy of ID, regardless of the processes taken to analyze data, the researcher ultimately informs the interpretation of the data (Thorne et al., 1997, Thorne et al., 2004). Thus, the researcher acknowledges her positionality and how it contributed to her interpretation of the data; however, through this awareness, she ensured no undue liberty was taken in her interpretations and findings. The researcher challenged her reflections, impressions and interpretations through detailed journalling and used Braun and Clarke's (2013) reflexive thematic as the method of analysis to inductively develop patterns of meaning and themes (Braun & Clarke, 2013). The study used semi-structured interviews to explore SPs' perceptions and experiences resulting in ten interview transcripts. The core assumptions of reflexive thematic analysis were congruent with the overall methodology and aim of research study and include:

(a) researcher subjectivity as a fundamental tool;

- (b) data analysis and interpretation ranging from weak to robust;
- (c) coding and theme development resulting from immersion and distancing;
- (d) coding quality is not dependent on multiple coders but rather a single coder;
- (e) themes as outputs of codes;
- (f) themes forming patterns of meanings conceptualized by the researcher through systematic analysis;
- (g) data analysis underpinned by theoretical assumptions;
- (h) reflexivity demonstrated through journaling and acknowledgment of the researcher's role and perspectives, and
- (i) evolving themes within a strong framework of rigor (Joy, Braun Clarke, 2023).

The design was grounded in a patient oriented research approach (POR) where service providers were active in the co-design of the larger project, ensuring their perspectives helped inform the recruitment, interview procedure, and interpretation of the data (Canadian Institutes of Health Research [CIHR], 2019; Donald et al., 2022). Six service providers participated in the design of the larger two-site research project including developing the consent, semi-structured interview questionnaire, recruitment materials, (see appendices B, C & D). Data analysis and resultant findings were based on the subset of the larger two-site study, which was independently analyzed with resultant themes and findings generated independently by the researcher LA.

Privacy and data storage, as highlighted within the consent process and Research Ethics Board (REB) forms, ensured all files were stored on secure servers at Waypoint in accordance with organizational privacy policies. This study received ethics approval from Waypoint Centre for Mental Health Care, the Centre for Addictions and Mental Health (CAMH) and the University of Waterloo (REB# 46241).

Setting. The study was conducted in Simcoe Muskoka, a region of Ontario and a region experiencing higher than provincial rates of opioid toxicity deaths (PHO, n.d.). The region includes urban, rural and remote communities. As PHMs were rapidly implemented, health and social service availability, and staffing impacts were significantly affected in this region.

Data. This study was based on a subset of data that was part of a larger two site study co-lead by Waypoint Centre for Mental Health Care located in the North Simcoe Muskoka region (NSM) and the Centre for Addiction and Mental Health (Toronto) entitled “The collateral effects of COVID-19 public health policies: Perspectives of people who use opioids and those closest to them using a patient-oriented research approach within a learning community framework.” The data for this thesis were generated from the transcripts from the North Simcoe Muskoka region obtained with permission from the Waypoint Research Institute and approved through the University of Waterloo Research Ethics Board.

Recruitment. Posters were placed within Waypoint Centre for Mental Health Care hospital inpatient and outpatient units (Penetanguishene and Midland, Ontario), and community agencies such as the Gilbert Centre (in Barrie, Ontario). The purpose of the study and inclusion criteria were outlined on the poster, as was contact information of the lead investigator and details regarding remuneration (\$25.00 on completion of the interview). Funding to support the remuneration for participation was provided through a CIHR Catalyst Grant. Staff at the sites were informed about the study’s purpose and encouraged to share through huddles and team meetings to raise awareness and draw attention to posters. Participants were service providers who cared for PWUOs during the first two years of the pandemic (See Appendix D for the recruitment poster). Participants could withdraw or discontinue their participation in the project at any time and were informed of this at the outset of the consent and again at the outset of the interviews. No participants withdrew from the study and all that volunteered met the inclusion criteria, so no participant was turned away.

Purposeful sampling. Following Braun & Clarke’s approach (2021), purposeful sampling was used to ensure data gathered were rich and deep, while being pragmatic in terms of timeliness and capturing individuals relevant to this study. This approach ensured participants possessed the direct experience of providing services during the period of interest to PWUOs. This is unlike convenience sampling where participants are selected based on ease of access which risks misalignment with research aims rather purposeful sampling intentionally identifies participants whose perspectives illuminate issues under investigation (Andrade, 2020). The approach is congruent with, and essential components of ID (Thorne et al., 2004) and reflexive thematic analysis (Braun & Clarke, 2021).

Sample size. Ten SPs were recruited and interviewed for the Simcoe Muskoka area. When exploring sample size, Braun and Clarke (2013) noted that for smaller qualitative studies using interviews, a sample of six to ten interviews is considered appropriate.

Inclusion and Exclusion criteria. Participants were required to be 18 years or older and identify as having provided service to people who used opioids during the first two years of the pandemic. Participants could withdraw or discontinue their participation at any time and were informed of this during consent and again at the outset of the interviews.

Consent. Consent was obtained virtually. The consent form clearly outlined: the research team, the purpose of the research, participant role in the research, risks and benefits, no risks to employment and voluntary nature of interviews, confidentiality, rights, participant protections, remuneration, conflict of interest, contact information, and interviews were audio-recording procedures (See Appendix B). Signatures were obtained prior to proceeding to interviews (electronically). All participants were advised that a second interview might be required to ensure accuracy and clarification – none were required.

Data Collection. Once informed consent was obtained and entered into REDCap software, interviews were conducted by a Research Analyst (RA) at the Simcoe Muskoka sites. Interview methods included in-

person, virtual or by phone depending on the participant's preferred method. No participants requested phone interviews; most were conducted virtually, followed by in-person interviews. The guide reiterated to participants the study purpose, voluntary nature of the interview, the ability to stop the interview at any time, and the audiotaping of the interview. Once the review was completed, the participant was advised that audio recording would commence. The interview questionnaires started with basic demographic data-related questions (Appendix D). The demographic data were entered by the RA and de-identified in REDCap following the interview. The remainder of the recorded interviews were manually transcribed by a separate research assistant, ensuring any identifying information was removed. The participant responses and interviewer questions were identified as Participant and Interviewer (shortened to P for PWUOs and SP for service providers). Each line within the transcript was numbered. The audiotapes were saved by participant number, as were the transcribed transcripts in a secure, password-protected research file. At the conclusion of the interview, a list of supports was available should the participant feel the need for added support post-interview (See Appendix E).

Data Analysis. Prior to LA gaining access to data for analysis, a research assistant (RA)

at Waypoint Centre for Mental Health Care completed entering all the data from the full transcripts into REDCap. The interviews were captured without modifications or grammatical corrections. The RA removed names, assigned numbers, and created one password-protected with only the lead RA having access should a participant no longer participate. The researcher LA was given access by authorized Waypoint staff to the anonymized files on a Waypoint computer containing the saved, numbered transcripts, and corresponding audio files. The transcript files were later saved within NVivo 14 for ongoing data analysis and the development of codes and themes derived from the interviews. Reflexive thematic analysis was undertaken using Braun & Clarke's six-step process (Braun & Clarke, 2013; Joy, Braun & Clarke, 2023).

Step 1 involved familiarization with the transcripts by listening to each interview, followed by repetitive reading of the ten transcripts. Impressions, questions, and reflections relevant to the researcher's positionality were captured in annotations within the text of the transcripts or on a separate Word document.

Step 2 commenced with coding and deconstructing transcripts into granular codes captured under larger parent codes associated with the research questions arising from the semi-structured questions using NVivo. Coding was iterative and required multiple reads of the transcripts, pausing and re-reading with annotations included to capture thoughts and impressions. Once completed, the parent codes and granular codes were reviewed with the committee members for feedback and further refinement.

Step 3 commenced with reconstruction of granular codes into broader codes to identify initial themes. A tabular spreadsheet was used to organize initial themes with all the supporting codes, numbered by participants.

Steps 4 & 5 involved the continued and iterative refinement of themes, supported by the most impactful codes. Themes evolved, with subthemes, which were reviewed to ensure relevance and to avoid overreliance on key participants. The final themes, subthemes and codes were shared with the researcher's committee for feedback, clarification and accuracy. As outlined earlier, concepts associated with stigma, vulnerability, disparity, and syndemic theory were assessed for their presence in the final themes and included in the discussion.

Step 6 commenced with the write-up of the findings.

2.5 Results

Sample Characteristics Ten SPs were recruited from the North Simcoe Muskoka Region; four were from inpatient services and six were from outpatient and community clinics. Of those, three identified as male,

seven identified as female, and ages ranged from 26 years to 57 years. Seven identified as white, North American, and/or European and three identified as Indigenous or other. Clinical roles included six Social Workers or Addiction Counsellors and four Medical or nursing roles. Length of time working within the addiction field varied, with three working less than five years, five working five to nine years and two working for ten to nineteen years.

Qualitative Results. Through thematic analysis, the researcher developed four core themes regarding the perceived effects of PHMs on SPs themselves and the PWUOs they cared for. The four core themes were: 1. “There was no winning”; 2. Exacerbated harm and risk; 3. Worsening circumstances and worsening use; 4. There was some good. Themes one and four included personal experiences of the SPs regarding the effects of social distancing and service reductions on themselves. Themes two, three and four were about the SPs’ perceptions of the impacts of the PHMs and service reductions on PWUOs.

Theme 1. Based on Service Providers’ Experiences. “There was no winning.” This quote from one of the SPs interviewed, captured the overall sentiment from all SPs. This theme contained three subthemes: 1. Worsening quality of care; 2. Worsening mental health and burnout; 3. Conflict and team cohesion. Service providers described an overarching experience of “there is no winning,” which reflected the cumulative and interrelated impacts of the pandemic and the PHMs on: Care delivery; workforce wellbeing, and team functioning. Issues of chronic understaffing, frequent deployment and inexperienced staff significantly affected the quality of care being provided, forced SPs to assume unfamiliar roles and “wing it” in the absence of training, guidance and continually changing measures. These challenges were further compounded by rapidly changing technologies (e.g., virtual care), inconsistently implemented PHMs, and escalating service demands, which left SPs expressing feelings they could not provide the level of care their clients deserved. Ongoing exposure to these conditions contributed to feelings of moral distress, emotional and physical exhaustion, and burnout, with SPs expressing feelings of powerlessness, ethical conflict and deteriorating personal health. SPs also commented on inconsistent organizational

decisions, shifting practices which eroded team cohesion, increased interpersonal conflicts, and trust in leadership. Collectively, service provision and SP wellbeing were significantly affected.

Subtheme: Worsening Quality of Care. The subtheme “Worsening Quality of Care” expressed by all SPs reflected the inability to provide skilled and expert care, the strain from staffing shortages, and redeployment. The following statements from participants described significant strain arising from chronic understaffing and widespread redeployment of clinical and allied staff. Personnel were required to take unfamiliar or secondary roles to fill the gaps, which limited their ability to deliver specialized care they were familiar with and felt competent in.

SP.21: Like people who weren't of a nursing background, pretty much all allied staff were given a second job of patient care attendants to try to accommodate any deficiencies in the care because we didn't have anybody or we were short staffed.

Redeployment contributed to disruptions to core functions such as group programming, addictions support and treatment, and regular clinical follow-up. Service providers expressed frustration combined with powerlessness to do what they felt was needed for the clients. At the same time, SPs commented on increasing demand for services, increased regional pressures created through transfers and acuity in hospitals, staff and physicians in the community struggled with heavy caseloads and a sense of overwhelm was being expressed “you know, we couldn't, there was just too much going” *and* this resulted in an inability to meet the level of the care clients “they deserved.”

SP.20: ...but there is stuff that I do regularly as a [clinician] that worked well for people who used opioids and even then I was redeployed for a lot of time so my ability to do things was limited... we weren't able to run groups because our [clinicians] were redeployed. We weren't able to offer regular addictions support because our [other specialty clinician] was on rotation...So it was frustrating because you would like look up and you are exhausted and you are trying to do

something that you have no training for and you are kind of making it up and you are like what am I doing?

Staff expressed stress and frustration associated with the inability to deliver care they felt was appropriate or were unable to provide due to the loss of staff. These conditions contributed to the quality of care, with SP describing “winging it,” dealing with changing technology and practices associated with the evolving PHMs being introduced. SP 22 reflected: “It felt terrible to provide care that was not, like you knew it wasn't good, you knew it wasn't really hitting the mark but that was all you could do.”

Subtheme Service Provider's Worsening Mental Health and Burnout. Most SPs expressed worsening health, characterized by profound emotional, physical, and moral exhaustion, comments highly indicative of burnout. Extended hours due to understaffing, the fear of infecting their families, isolation from their loved ones intensified their level of loneliness and distress.

SP.6: Keeping staff was very difficult which it could be, ...so I worked a stretch of, and I agreed to it, 36 days straight and so that is also obviously that impacted me, right, like I was tired. I was really, really tired.

SPs expressed feelings of powerlessness, being unheard, and being taken advantage of, alongside guilt and moral conflict due to their inability to provide levels of care consistent with their professional values.

SP.22: ...it definitely contributed to this feeling of like, I mean the pandemic made nurses feel powerless a lot in general, we felt very unheard and very taken advantage of but then you also just feel like you are a bad person essentially because you are not doing enough.... nursing so it felt like very, fraught and you kind of constantly felt like you had this moral, or ethical dilemma like what do I do?

Prolonged exposure, working in these conditions resulted in sentiments of exhaustion, and comments indicated emotional “breakdowns” and “something just kind of broke the camel’s back and I started to cry and there was no stopping me.” SPs shared their need for stress leaves, noting having they “had to step back” and just getting through on a minute-by-minute approach until they no longer could do this. When these responses and experiences were reviewed in entirety, burnout, moral distress, and declining well-being were clearly apparent and predominant across responses shared by these SPs

SP.20: I had to go off on stress at one point like once I got out of it I realized how unwell I was because you get into this like treadmill cycle where you are just going through and focusing on the next 5 minutes, the next 5 minutes, the next 5 minutes, and the next 5 minutes so then you don't look back and go like oh, I am not doing so good until you hit a wall and I know a lot of people that did that that kind of kept going until they hit a wall.

Subtheme Service Provider Conflict and Team Cohesion. All SPs commented the loss of team cohesion and increased conflict. Inconsistent implementation of PHMs and variable management decisions across programs were noted as key drivers for this loss. Differences in how guidelines and PHMs were interpreted and implemented created divisions amongst SPs resulting in interpersonal conflicts, fractured communication, and a loss of group cohesion, something they missed. Patients were also impacted by the variability in interpretation, expressing confusion, which some SPs found distressing.

SP.6: There was a large divide between people who followed them and people who didn't follow them and it I feel like it was trying to herd cats having trying to have everybody follow the guidelines. I think that there was, increased conflict between people as a result and more of a segregation between who would and who wouldn't follow...they really did impact people's mental health, their communication, and their group solidarity as a whole.

The shift to virtual care caused some strain on relationships by reducing the ability to informally connect, debrief, and limited the presence of peer support that was previously available through in-

person work environments. Comments such as “it actually benefitted my mental health and being with people in close, to talk with people” conveyed how virtual care restricted in-person interactions, and negatively affected SPs’ mental health by reducing opportunities to engage meaningfully with their colleagues and patients/clients.

SP.4: A lot of tension where we used to work so well together and a lot of I would say negativity and then also not having those regular outlets...looking at navigating like Zoom and how to facilitate the group by like keeping confidentiality, being careful of people showing up under the influence, um, just trying to provide that group therapy and also on Zoom it's kind of like okay, session is done and you log off, versus inpatient, where you walk down the hallway and you can grab the employee aside to have a conversation.

Together, these sentiments demonstrated increased frustration among the SPs and the patients and clients they cared for, with eroding collaboration, trust, team cohesion and loneliness that were not present previously.

Theme 2: Service Provider’s Perceptions of PWUOs’ Experience Exacerbated Harm & Risk. This second core theme included the following subthemes: 1. Worsening access; 2. Increased overdose and death. Service providers described PHMs as significantly exacerbating harm and risk for PWUOs by worsening access to health and social services. As a result of the closures, reduced capacity, access to primary care and opioid agonist therapy, SPs commented on increasing illicit drug use resulting in increased risks of overdose and death. Housing and shelter capacity also worsened, resulting in comments about some PWUOs sleeping outside, in crowded shelter environments with little privacy and abstinence was challenging. Social distancing further contributed to unsafe practices of using alone without the presence of someone near to help should an overdose be experienced. Services providers comment that the increased loss of life associated with overdoses was morally distressing given they felt these deaths were avoidable if resources and access were available.

Subtheme: Worsening Access. All the SPs interviewed expressed distress about the worsening situation PWUOs experienced because of their inability to access services they needed due to pandemic-related PHMs. The SPs described how the PHMs worsened access to already limited health and social services, including addiction and treatment services, leading to increased harm. Comments such as “community providers have always been difficult to reach but at this point they became essentially unreachable” indicated the challenges of worsening access. Service capacity reductions, limited access to primary care and opioid agonist therapy caused some to turn to illicit substances due to delays in prescription renewals or adjustments. When reviewing the SP’s comments, they seemed to convey distress about what they were witnessing and hearing, a sense of abandonment for those seeking care and were left without viable options for care, and as a result – “had to rely on using illicit substances” with poor outcomes that clearly weighed on them.

SP.10: Like I worked in a rural area and there were challenges the suboxone treatments, methadone treatments, in accessing those right? So basically, there were challenges in reaching out and you know, supervising patients and stuff like that. I felt like with pandemic, those challenges had increased more basically. It exacerbated those challenges. I remember seeing a record of 34 people in one day in [the clinic] but then with the pandemic and all of the sanitation procedures, it was only 10. Only 10 people because we had to make sure that they were separated, by different rooms and hallways were used because of all the sanitation procedures we had to complete at that point.

Comments depicted deteriorating housing and shelter situation as capacity was reduced, leading some sleeping outside in “igloos” or other unsafe situations/environments. SPs raised concerns about inequity that was created through the shift to virtual care as many PWUOs lacked access to the technology, reliable internet, private spaces to access and engage in this form of care, “I am sure a lot of people don't have technology, Wi-Fi, or even data plans, to be able to attend a virtual NA.” There was an

expression of abandonment and being disconnected from meeting the needs by introducing an inaccessible service.

SP.9: Another barrier, absolutely another barrier. I had a client who dug themselves an igloo in the snowbank and slept there. Yeah because there's no room at the shelters, the space was cut in half and so he just stopped trying and just started doing that.... I had clients who needed to get access to shelter systems and when the shelters, the space was cut in half because of the way that they needed to, or were less, because of the way they had to isolate. I had more clients sleeping outdoors than I typically would have seen at night. So, it really had a negative impact.

Social distancing was noted as a barrier to safer use due to the inability to use with another person in proximity. These barriers were depicted as contributing to increased substance use, riskier behaviours and increased rates of overdose and death. Comments conveyed a profound level of distress and powerlessness as simple harm reduction strategies to prevent overdose could no longer be used. Also, a sense of being defeated or despondent as the PHMs were deployed repeatedly, PWUOs were made “more vulnerable than they already were.” The following statement signals both exhaustion and the burden experienced by a SP.

SP.6: ...it was one of the hardest periods that I have experienced to date working in the field because we did see a large number of people overdose because their prescriptions weren't filled in time and they used street substances it really comes down to, there was a bigger sort of, there were more barriers to those individuals, being able to access the basic needs, and as a result they continued to increase their use to try and manage the stressors and the lack of needs being met and as a result we saw an increased addiction, like we said, poly substance, different routes of administration, and that led to the potential for increased overdose levels, or rates, sorry, and increased deaths which was really bad.

Subtheme: Worsening Overdose and death. SPs collectively expressed a substantial increase in opioid use, overdose and death during the pandemic, describing these trends as the most distressful outcomes of the service disruptions that occurred from the pandemic-related measures. Participants described frequent, sometimes daily overdose events. The participants were clearly expressing the effects this had on themselves emotionally from knowing these events could have been prevented if resources were available. The sense of an overwhelmed and chaotic system was conveyed with a powerlessness to do anything about it, “you can only do so much and that is a really hard thing to face.”

SP.22: Sky high. Oh my gosh, I so, so many people would call us from emergency rooms, or from like going to their parents because their parents were the only people that would provide them with any support. They couldn't go to shelters, they couldn't do any of the things they would do to cope so it was ridiculous how many people we heard about overdosing and dying. It was like every other day you would get a phone call. It was awful. Awful, awful.

These experiences collectively underscored the profound loss of life associated with opioid use and a sense of disconnection from this level of death by those implementing the PHMs, with SPs experiencing a heavy emotional burden or trauma from it. Service providers at the time of these interviews were still struggling and expressing profound moral distress from their experiences.

Theme 3: Service Providers’ Perceptions of PWUOs’ Experience “PHMs Worsened Circumstances and Use.” This core theme was based on SPs’ perceptions that the PHMs implemented significantly worsened the situation for PWUOs with resultant worsening substance use and heightened risk. Disruptions to the drug supply made substances more unpredictable and potent, culminating in people using whatever was available, using highly adulterated drugs through a variety of means of administration and at times unknowingly using polysubstances. At the same time, PWUOs were experiencing reduced services and treatment options, reduced recreational activities and social supports, which contributed to increased social isolation and boredom, factors that SPs identified as contributors

to increased use and relapse. Temporary housing and shelters provided an environment that amplified the risk of use and relapse due to the presence of dealers and substance use on the premises. These structural and social factors culminated in worsening mental health, social isolation, increased anxiety and depression, leading to worsening substance use as a way of coping. Combined, SPs described an environment in which PHMs escalated PWUOs' vulnerability, contributed to riskier drug use, and intensified harm. The following subthemes in this third core theme include: 1. Unreliable drug supply and riskier use; 2. No supports and boredom; 3. Hotels & Shelters; 4. Worsening Mental Health.

Subtheme: Unreliable Drug Supply and Riskier Use. Of those interviewed, most SPs expressed concerns regarding PHM related disruptions to the drug supply, which made drug supplies less available and unpredictable due to border closures and transportation issues, and more potent due to increased adulteration from criminal factions/dealers, leading to riskier use and increased overdoses. As a result of the more limited drug supply, rising costs, increased levels of adulteration, SPs conveyed both fear and distress about the "desperation" of PWUOs and their abandonment of caution, using whatever substances were available even when unfamiliar, regardless of the risk. SPs saw a progression from single substances to polysubstance use, with increases in fentanyl contamination and the use of riskier routes of administration such as injecting. With the disrupted drug supply and increased costs, individuals sought substances that were stronger, lasted longer, and were available in smaller quantities. These changes in supply, adulteration, cost, and riskier use, created conditions that heightened overdose and death. SPs watched this unfold, and expressed feeling of powerlessness to intervene.

SP.6: We saw individuals go from using maybe just crack to using fentanyl and meth and oxy and more street pills, well opioids, street opioids because may not have been able to afford what they're previous drug of choice was and as a result we saw, like I saw a massive increase in addiction but sort of poly addiction... we saw people change from snorting or smoking to injecting because there was again, tolerance was increasing because they were using more.

Subtheme: No Supports & Boredom. Service providers referenced how the restrictions led to increased opioid use and relapses due to the inability to access services and supports, and prolonged periods of inactivity and boredom, conditions that directly undermined harm reduction and abstinence goals. With the closure or suspension of counselling, group programs, pain clinics, physical activity, and non-pharmacological supports, few alternatives remained for managing or stress. Together, these circumstances contributed to increased opioid use, polysubstance use, and the adoption of riskier routes of administration.

SP.7: ...many patients who would otherwise would have been weaned off in a timely manner and switching to more active modalities such as aggressive physio, pain clinics that would help with pain, alternatives to opioid use have continued using opioids for prolonged periods of time. Having to kind of resort to opioids only instead of utilizing all other options that were out there before the pandemic until they were taken away, pain clinics, physio, chiropractors, gyms, the gyms were closed.

With increased social isolation and confinement, SPs expressed beliefs that substance use increased to address loneliness and boredom. Comments by the SPs conveyed their helplessness to stop what they felt were avoidable relapses in previously stable patients due to abrupt service closures including treatment beds, and boredom from limited or no support and services. SP.4 offered:

“...we did get phone calls from clients who had to pack their bags in that one day and be sent home, um, quite a few clients had relapsed.”

Subtheme: Hotels & Shelters – easy prey. Most of the SPs indicated shelters and hotel-based accommodations increased risk for PWUOs rather than providing a safe or stable environment. With reduced shelter capacity due to PHMs, statements by SPs conveyed unease and moral conflict as they worked to get shelter for their clients while also recognizing the risks inherent in hotels and shelters, from

isolation and using alone in hotel rooms, to the presence of dealers and substance use, sharing space with people who were actively using, conditions making abstinence almost impossible.

SP.8: You're sitting on your hotel room on a queen-size bed which is you know, pretty nice. And what, there is, there's TV. Um, so if you were, depending on what your plan was, like your recovery plan, some people wanted to be abstinent, some people wanted to focus on harm reduction or reduce their use. Um, but if you have a roommate who is openly injecting, it's not going to end up well, right. And that was a big problem because a person would come in in really good shape and then leave in worse shape, right. there was so much substance use going on, you know that if you weren't, if you came to the shelter not using, the likelihood that you would start using something you know what I mean because you didn't really have access to the outside world, yeah that would increase.

Subtheme Worsening Mental Health. Almost all SPs reported that COVID-19 and the restrictions caused by the PHMs significantly worsened the mental health of PWUOs with increased stress, anxiety, and depression contributing to higher substance use. Service providers described this as a reinforcing cycle where worsening mental health led to increased use, which further led to deteriorated physical and emotional well-being.

SP.6: We saw a huge range of different things impacting people's mental health to varying degrees which then led to increased substance use. That increased substance use would then impact their health, impact their mental health, which then they would use to try and subside or manage, or help cope within whatever way they knew how...

Service providers expressed that reduced access to mental health, health care services and supports, combined with prolonged social isolation, unstable housing and shared space in shelters, intensified psychological strain by limiting opportunities to engage in activities to mitigate or support recovery from their substance use. SPs recognized that living in transient housing with high substance use,

limited privacy and minimal support was not conducive to recovery, nor did it address escalating mental health issues - worsened by substance use, isolation, and stress, which ultimately contributed to worsening substance use.

SP.8: I think, the access to mental health, to health care, mental health care, it didn't matter. If your living within the shelter you were, it was like, there was so much substance use going on..., yeah that would increase and there was also this mental health thing living with someone who has mental health. Like if you're struggling, but the person in the bed next to you is like struggling, it is really difficult to separate yourself and to have your own private space.

Theme 4: Service Providers' Perceptions of Some Positive Impacts from PHMs. The final core theme related to a small number of SPs who were able to identify several positive impacts for themselves related to the change to virtual care, which they described as "It's a blessing in disguise." They described reduced travel and fewer in-person obligations, which allowed for better use of their time and the ability to engage with more clients.

SP.20: ...like having virtual services, having meetings like this where I don't have to worry about, like now the norm isn't to travel to go and redeployment meet with people but I am able to have more meetings like this, online, and this is the new norm and that was a real positive to my work.

The normalization of online meetings and service delivery was perceived as an improvement in efficiency during a time of system chaos, helping the SPs to remain responsive to client needs while addressing an increasing workload. While these benefits were limited, they did highlight benefits of technology-enabled service delivery related to certain efficiencies.

SP.22: I think that made a lot, you know were stretched really thin so being able to use technology to kind of push our time further is, reduced travel time and that kind of stuff has been really great and also a lot of stuff, you can do a lot more stuff online than you could before.

Half of the SPs identified two areas of positive impacts they felt the PWUOs benefited from related to service changes: 1. Virtual care services; 2. Temporary housing. Service providers noted that virtual services improved accessibility some services for certain individuals, those well enough to access this type of service versus those who were too unwell, highlighting their awareness regarding the inequity of this service. For those who could benefit, they were able to access services from home and enjoyed the flexibility of this service, and clients did not have to come in person for services.

SP.4: ...but for the individuals who it did work for, I know that they did really enjoy it because they could stay home and maintain their lifestyle there but still get the help and support that they needed, especially with so many other services being shutdown still, being able to get that support without having to wait like super long wait times.

The provision of temporary housing through hotels or shelters, for some individuals this was their first access to housing in an exceedingly long time. PWUOs could access shelter, and a bed and necessities of life.

SP.8: ...but the bonus, was that people who had been living on the streets, I don't know the last time they had a bed to sleep in. One guy, he wasn't used to having a bed, he still slept on a chair or on the floor because it wasn't his norm, right? And to have a roof provided over their head for the first time in I don't know how long, and it had some meals provided and a bathroom and a shower. Right?

While the benefits were highlighted above, SPs emphasized that benefits needed to be tempered by the challenges they presented. SPs commented on significant technological barriers associated with the rapid shift to virtual care, which had negative effects for PWUOs. Comments spoke about PWUOs and individuals accessing psychiatric services did not always have reliable access to phones, internet, and data plans, which limited their ability to participate in virtual meetings and supports. SP. 20 reflected:

“...but again the internet issues are a big one and even phone use is difficult for those folks.” While SP.22 reflected: “just thinking about the populations who were served by psychiatric organizations are generally not the folks who have access to internet all day every day.”

Service providers commented on challenges associated with the need to quickly adapt to changing digital platforms without established policies, procedures, or adequate preparation time, which created frustration, inefficiencies, and delays. The heightened reliance on technology during the pandemic heightened inequities and presented significant barriers for some PWUOs causing some challenges for SPs; thus, may not have been an entirely effective method of care delivery change.

2.6 Discussion

This study explored SPs’ perceptions regarding the impacts of PHMs on both themselves and PWUOs in a mixed urban-rural region of Ontario. Overall, the findings revealed overwhelmingly negative perceptions and experiences reflected in three of the four themes 1. “There was no winning;” 2. Exacerbated harm and risk; 3. Worsening circumstances and worsening use. Together, these themes illustrate parallel deterioration in SPs’ wellbeing and PWUOs’ quality of care, physical and mental health, and access to services culminating in worsening overdose and death. These findings align with existing literature; however, this study offers insights from a more rural setting specific to SPs who worked closely with PWUOs in this area. The following discussion addresses the implications of the findings.

Theme 1: “There’s no winning.” At the time of these interviews in 2023, the pandemic response was easing, with health care services focused on stabilization and resuming normal operations. Ontario Health launched its *Plan to Stay Open Health System Stability and Recovery* (Government of Ontario, 2022; Ontario Health, 2022e), a five-pillar strategy to stabilize, build capacity, and recover from the pandemic. Operations with respect to COVID became a normal part of work functions. Staff were no longer being redeployed, vaccines had been in place for several years, outbreaks and staff illness were less severe and

managed without escalation. Despite this, SPs shared deeply personal accounts demonstrating that the effects from the earlier pandemic were lasting and raised concerns about residual trauma. Research documenting harm experienced by health care clinicians – including burnout, anxiety, depression, and moral distress is well established (Brophy et al., 2021; Rotenstein et al., 2023; Tabour et al., 2022; Orr et al., 2025). However, what was unique to this study were the distinct challenges SPs experienced when working with PWUOs in an urban/rural setting. They described repeated exposure to overdose-related deaths, not from COVID-19, but from their perspectives, due to PWUOs inability to access needed services, the worsening drug supply, and escalated and riskier substance use due to unmet needs, and riskier environments from temporary housing.

SPs expressed concerns regarding the quality of care provided to PWUOs during this timeframe due to inexperience, redeployment, and their overall inability to support this population. A sense of disempowerment, overwork, and distress about being unable to provide expert clinical care contributed to the overarching theme of “no winning.”

Themes developed from this study demonstrated SPs in this region were negatively impacted by their experiences and what unfolded locally. Although the interviews occurred following the post-acute pandemic period (2023), the findings highlight the need for actions to increase preparation and support during and following prolonged emergency responses. Implications include workforce planning, preparation, and training to ensure clinicians are better prepared and staffing models can support prolonged surge responses.

Further research is needed to assess the long-term effects experienced by SPs, particularly those working in addictions, to determine whether adequate support has been provided during and after pandemic. Findings may inform future pandemic policy for SPs to ensure effective and sustained measures are in place. Prior to the pandemic, literature indicated certain SPs were struggling with burnout; however,

more research is needed specific to SPs working with PWUOs. Although burnout was not a primary focus of this study, further research could help tailor supports and identify strategies to mitigate burnout in this field.

Theme 2 and 3: Exacerbated harm and risk & worsening circumstances and use. Service Providers

noted that services and support in this area were limited prior to the pandemic, meaning PWUOs were experiencing service disparities. From their shared perspectives, SPs reported these pre-pandemic vulnerabilities were compounded by the broadly implemented PHMs resulting in a syndemic harm response for PWUOs. The SPs described increasing substance use, reliance on street drugs, and an unreliable drug supply that intensified overdoses and deaths. Reduced access to services contributed to perceptions that PWUOs were experiencing worsening mental health, increased use, and riskier practices such as using alone due to social isolation and distancing.

A surprising finding involved SPs descriptions regarding hotel/transient housing. As noted earlier, transient housing was associated with higher rates of opioid related deaths – the second highest rates of opioid toxicity deaths occurred within transient housing (Gomes et al., 2023a). The SPs’ perceptions provided contextual insights that may explain:

1. PWUOs were unable to access stable housing due to closures and reduced bed capacity.
2. Once in shelters and or hotel spaces, PWUOs were exposed to high levels of substance use, riskier practices such as using alone in their hotel room, and the presence of dealers, making abstinence exceptionally challenging.

SPs perceived PWUOs as increasingly vulnerable as their overall well-being and circumstances deteriorated with PHMs. Pre-pandemic barriers intensified, further limiting access to needed services and resources. Consequently, SPs indicated PWUOs’ situations deteriorated, drug use escalated, and

engagement in riskier practices resulting in increased harm such as overdose and death. These findings align with evolving literature on PWUOs and the effects of PHMs, as well as research on the impacts of events such as Hurricane Katrina, Hurricane Sandy and SARS on people who use drugs (Mitra et al., 2024; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022; Spencer et al., 2023; Tam, 2020; Zolopa et al., 2021). Broad PHMs included border closures and service disruptions affecting drugs supplies, transportation, and access to supports culminating in increased harm (Zolopa et al., 2021).

SPs' observations of limited services and resources are consistent with findings from the Simcoe Muskoka Opioid Strategy Table (Brens et al., 2018; Eisener et al., 2022). Service limitations were problematic before the pandemic and worsened during it, highlighting a key area for policy consideration. Rural regions already experiencing service disparities require additional consideration and action to reduce the impacts of broad PHMs. PHMs rapidly deployed during a pandemic or other large-scale events are known to strain already limited resources (Gomes et al., 2021a; Klein & Begen, 2024; Mitra et al., 2024; Russell et al., 2021; Zolopa et al., 2021). Regions need to anticipate the impacts of PHMs and prepare tailored measures to support vulnerable populations. Policy action is needed to address inequities in fundamental services and supports for PWUOs during non-emergency times and ensure essential services are kept intact during future pandemic(s). Local pandemic plans need to outline essential services for known vulnerable populations within their service catchments to ensure continuity during an emergency response.

Theme 4: Some Positives. Although more limited, some SPs provided positive perspectives related to the rapid shift to virtual services and hoteling spaces, consistent with other evidence (Klein & Begen, 2024; Monaghesh & Hajizadeh, 2020). SPs highlighted their ability to see more patients without travel. Benefits for PWUOs included the ease of accessing virtual services when well enough and when they had access to cell phones and Wi-Fi. However, SPs acknowledged this was not a feasible option for all if they

had no Wi-Fi or cell phone access, or the need for physical care.

Some SPs viewed hotels positively, noting that this was the first time some PWUOs were off the streets. However, SPs described a darker side; the presence of substances, using alone in rooms, or the inability to separate from those using in shared spaces, and the presence of dealers within the facilities. These contextual factors help explain higher rates of opioid toxicity deaths in transient housing (Gomes et al., 2023a), and perhaps the unintended consequences of this policy action – a consequence requiring consideration in future pandemic planning.

SPs' insights highlight the benefits and challenges of virtual care and hoteling. Further research is needed to elucidate the impacts and efficacy of these rapid changes for PWUOs and SPs. Research in this area may help inform and offer guidance to future pandemic responses, including strategies to mitigate the harms which occurred.

There are findings from this study that require further research and have implications for policy and practice changes to better support future pandemic responses. Resources and time to learn from these SPs' experiences are essential. Without this attention, valuable lessons will be lost, opportunities to better understand the impacts on SPs and PWUOs they cared for, and to prepare for future emergencies will be missed.

2.7 Strengths and Limitations

Having people with lived experience, including service providers, contribute to the development and design of research, ensured their lived experiences informed the approach, tools, and processes used. Their involvement enriched the depth and quality of the responses provided. Braun & Clarke's reflexive thematic analysis (2013) was well-suited for the research questions and overall aim of this study because it enabled the researcher to deeply reflect on her positionality, interpret the data, and develop themes with practical implications for both practice and policy action. The approach also supported an

independent and rigorous analysis of the data and resultant themes through a well-established methodological framework. The researcher's positionality provided an in-depth understanding of health care system, particularly within the NSN region before and during the pandemic response, which strengthened the interpretation of the findings.

The findings of this research were specific to ten participants within one region of Ontario Canada. Readers need to consider the transferability of the results given the specific study setting and context described in the methods. Recall also warrants consideration, as well given that the study commenced in 2023 with participants relying on their memory from 2020 regarding services and PHMs. To mitigate this, aids were developed and provided to help orient the participants to the timeframe of interest. While recall bias may have been present, the time elapsed since the events, may have been a strength, allowing participants to reflect on and assess their experiences in a more meaningful way than might have been possible during the more acute phase of the pandemic response. The majority of participants in the transcripts were female. This was a subset of a larger two site sample. The researcher analyzed all transcripts from NSM, not selecting a smaller, more equal representative sample of sexes. This must be considered when reviewing the findings of this study.

2.8 Conclusion

The interviews and perspectives shared by the ten| SPs from the NSM region revealed predominantly negative effects from their perspectives regarding the PHMs introduced during the ten months of the pandemic on both themselves and PWUOs. While negative impacts from COVID-19 have been documented for certain health care workers such as physicians, nurses, and public health clinicians, research remains limited regarding the effects on SPs working with PWUOs in more rural areas. The views shared in this study regarding increased barriers and worsening conditions align with and reinforce previous research regarding the effects of PHMs on PWUOs. This study contributes to evolving research

on the impacts of PHMs on PWUOs and SPs working in more rural regions. Opportunities for future research, practice and policy changes were considered and highlighted in this study.

Chapter 3: The Experiences of People Who Use Opioids from the Public Health Measures Used During the First ten months of the COVID-19 Pandemic

3.0 Introduction

Preceding the COVID-19 pandemic that emerged in 2020, people who use opioids (PWUOs) were experiencing a public health crisis within Canada, and globally, due to opioid toxicity deaths (Gomes et al., 2023b; Imtiaz et al., 2021; Ledlie et al., 2024; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022; Spencer et al., 2023; Russell et al., 2021; Watson et al., 2022). With the COVID-19 pandemic, the numbers of opioid related deaths dramatically increased (Ahmad et al., 2022; Gomes et al., 2021a, 2023; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022; Spencer et al., 2023). During the first year of the pandemic, the United States experienced 100,000 overdose deaths, a 30% increase from the previous year (Ahmad et al., 2022; Watson et al., 2022). Similarly, the Public Health Agency of Canada (PHAC) reported startling statistics regarding the rise in opioid-related deaths during the same timeframe, a 96% increase in opioid toxicity deaths (April 2020 – March 2021, 7,362 deaths), compared to the year before (April 2019 – March 2020, 3,747 deaths) an increase to 21 deaths/day from eight deaths/day in 2016 (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022). Ontario witnessed a 79% increase in the number of opioid-related deaths (Gomes et al., 2021b) and Simcoe Muskoka, a region within Ontario, saw a 70% increase (Eisener et al., 2022).

Research examining the effects of the COVID-19 public health measures (PHMs) and the associated disruptions consistently demonstrated escalating harm (Friesen et al., 2021; Gomes et al., 2021a; Gomes et al., 2021b; Imtiaz, et al., 2021; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022). Recent qualitative evidence highlighted the escalating harms associated with the convergence of the two public health crises and the disruptive effects of public health measures on PWUOs based on their lived experiences (McCann et al., 2022; Russell et al., 2021; Watson et al., 2022). From these three studies, PWUOs reported that with the pandemic, they experienced service and drug

supply disruptions, the inability to maintain income and housing, social isolation, and the inability to visit family, which culminated in worsening their drug use, physical and mental health. However, it was unclear from these studies if these impacts were felt similarly or differently for PWUOs living within more rural communities of Ontario Canada.

This paper investigated how public health measures (PHMs) impacted people who used opioids (PWUOs) living within the region of North Simcoe Muskoka (NSM), Ontario Canada, a mix of urban and rural communities located just north of the greater Toronto area. Prior to the pandemic, the region demonstrated higher rates of emergency room visits for opioid related poisonings at 78.2/100,000 population compared to the provincial rate of 55.8%/100,000 population (PHO, n.d.). The intent of this study was to analyze the experiences of PWUOs from a mixed, rural and urban area already experiencing higher than provincial averages of opioid-related poisonings before the pandemic. By interviewing PWUOs from the NSM region, this study sought to illuminate their lived experiences regarding PHMs implemented. Would PWUOs identify mitigating strategies instituted by services providers, or health care agencies including hospitals and the Public Health Unit? The timeline selected for this study was the first ten months of the pandemic to focus on non-pharmacological PHMs instituted prior to the introduction of the vaccine.

Jurisdictional pre-COVID context. Prior to the pandemic, resources to treat and support PWUOs within Ontario and in Simcoe Muskoka included naloxone kit distributions through the Public Health Units and local hospitals, opioid agonist therapy (OAT), hospital inpatient and outpatient services, detox beds, Rapid Access Clinics, Pain clinics, and private health clinics (Eisener et al., 2022; Hutchinson et al., 2023). Although these resources were available in the province and the region, these services were not integrated, coordinated or distributed equally across the province and regions with large geographic areas having limited, or no access to resources (Brens et al., 2018; Hutchinson et al., 2023). As a result,

service limitations and variability between regions, combined with physical distancing created access issues and barriers for PWUOs seeking support and treatment.

In response to issues of limited-service integration, access challenges, and funding restraints amid increasing opioid-related poisonings, a task force was developed and launched a multi-sectoral plan known as the Simcoe Muskoka Opioid Strategy (SMOS) to reduce opioid-related harms. The SMOS Action Plan spanned three years (2018-2020) and provided five Action Pillars supported by two Foundational Pillars (Eisener et. al.,2022). Implementation of the plan stalled during the pandemic. Notably one of the key initiatives involved the approval of the only safe consumption and treatment centre in the region, the closest existing centre being in Toronto, Ontario. While planning occurred prior to 2020, Federal approval for this safe consumption site occurred in September 2022 (ultimately withdrawn by the Ontario Ministry of Health). Consequently this key initiative and service were not available during or following the study period (Simcoe Muskoka District Health Unit, n.d.). The SMOS Action Plan succeeded in achieving many initiatives; however, it acknowledged a decrease in opioid related deaths did not occur, in fact worsened during 2020 (Eisener et al., 2022).

From a political context, Ontario's government changed in the spring of 2018 where early policy decisions indicated a focus on fiscal constraint, including a reduction of \$335 million from the Mental Health & Addictions budget (Benzie, 2018). Overdose prevention sites and safe consumption sites were also paused – suggesting the new provincial government values may not have aligned to the needs of this sector. (DiManno, 2018; Rushowy, 2018; Government of Ontario,2018, September).

The Ontario & Simcoe Muskoka COVID context. On March 17, 2020, the Government of Ontario declared a state of emergency under s 7.0.1 of the Emergency Measures and Civil Protection Act (EMCPA) due to the new global virus COVID-19 (Government of Ontario, 2020g). Policy measures commenced several days prior to the declaration of the state of emergency in Ontario with the closure of schools. Following the declaration, the measures rapidly escalated throughout the months of March and April (See Appendix

A). Policy measures, also known as public health measures (PHMs) and non-pharmacological interventions (NPIs), severely restricted people's ability to gather and included closures of educational, work and social venues, isolation and quarantine measures.

At the onset of the pandemic, little was known about the COVID-19 virus. Vaccines and antiviral medications specific to COVID-19 were not yet available. As a result, broad sweeping PMHs were regarded as the most effective approach within the science community to control the spread of the virus (Mitra et al., 2024; Zolopa et al., 2021). Universally applied public health measures targeting the entire population or the “greater good” inadvertently created increased barriers to access in the absence of mitigating strategies to offset vulnerabilities arising from an established opioid epidemic, comorbidities, and service gaps (Gaynor & Wilson., 2020). The primary intent of these measures was to reduce or slow the spread of the virus, protect the most vulnerable and not overwhelm finite hospital resources until vaccines were available (Farley et al., 2021; Ferguson et al., 2020; Friesen et al., 2021; Gaynor & Wilson, 2020; Sebatu et al., 2020; Tam 2020). These measures resulted in closures, reductions and disruptions including: Social supports (shelters, food, community supports) and health related services (treatment and withdrawal beds, hospital beds and outpatient services and harm reduction services), drug markets and associated supplies, increased adulteration and prices (Ali et al., 2021; Canadian Centre on Substance Use and Addictions, 2020 [CCSA], 2020a; Friesen, 2021; Imtiaz et al., 2021; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022; Russell et al., 2021). For PWUOs, social distancing and isolation contributed to additional stress, using substances alone, and increased vulnerability and disparity due to reduced access to substance use programs and services and the inability to access drug supplies due to isolation mandates and border restrictions (Gomes et al., 2021b; Tam, 2020). Within the NSM region, the only inpatient concurrent mental health and addiction treatment beds closed on April 8, 2020, outpatient services were temporarily suspended, and the availability of many treatment and harm reduction services in the community were suspended or ceased due to limited PPE

and staff redeployment (Waypoint Centre for Mental Health Care, 2020; Ontario Health Mental Health & Addiction COVID-19 Response Table, 2020, March 26).

PWUOs, known to have underlying health concerns associated with their drug use, such as Chronic Obstructive Lung Disease, Human immunodeficiency virus, and Hepatitis, experienced increased susceptibility to COVID-19 with poorer outcomes (Armitage & Nellums, 2020; CCSA, 2020b; Russell et al., 2021). The introduced PHMs caused a combination of disruptions in social and health services, and drugs and associated supplies for PWUOs. Combined, these underlying comorbidities and the broadly implemented PHMs resulted in escalating deaths among PWUOs, not from COVID-19 but from substance toxicity overdoses and deaths (CCSA, 2020b; Hutchinson et al., 2023; Russell et al., 2021; Tam, 2020; Wang et al., 2021).

Simcoe Muskoka District Health Unit (SMDHU) conducted an assessment on harm related to the broad PHMs with recommendations for mitigation (SMDHU, 2020). The report, released July 2020, included people who use substances as one of the populations assessed through a preliminary literature review and survey. However, the findings were limited and varied, with few citing lived experiences from PWUOs. Early results indicated an increase in opioid poisonings. No specific mitigation strategies for this population were identified – rather the recommendation was for ongoing monitoring and the inclusion of lived- experience perspectives (SMDHU, 2020).

Large-scale events and pandemics have disproportionately impacted populations such as PWUOs (Mitra et al., 2024; Tam, 2020; Zolopa et al., 2021). Historical inequities and the effects of large-scale events such as Hurricane Katrina and Sandy, SARS identified prior vulnerabilities experienced by PWUOs, plus the disruptions caused by the PHMs introduced during these events, intensified barriers to services, disrupted drug supplies, caused financial strain, isolation and stress and harm (Mitra et al., 2024; Tam, 2020; Wang et al., 2021). Consequently, it was evident prior to the pandemic that factors were

known, or ought to have been known that this group was at higher risk of harm from COVID-19, necessitating additional attention and support.

3.1 Research Approach

To understand the effects of PHMs and the potential harm introduced during the first ten months of the pandemic on PWUOs residing within NSM region, the following research questions were identified:

- a. What were the perceptions of PWUOs in NSM regarding non-essential service reductions and social distancing during the first ten months of the pandemic?
- b. How did PHMs affect access to services during the pandemic for PWUOs within NSM?
- c. What was the impact of changes to services and social distancing on PWUOs in this region?

3.2 Methodology

This study examined the perceptions of PWUOs during the first ten months of the COVID-19 pandemic in a region of Ontario, Canada. A qualitative interpretive description (ID) methodology guided the study design, data collection, and analysis. ID is well suited to applied health research because it supports the development of practice-relevant insights grounded in participants' experiences and contextual realities (Thorne et al., 1997; Thorne et al., 2004).

Study design & planning. The study, using qualitative ID methodology, explored the research objectives (Braun & Clarke, 2013; Giacomini, 2010). The focus of this study was to understand the PWUOs' perspectives regarding non-essential service closures, access, and other impacts associated with the PHMs implemented during the first ten months of the pandemic with the aim of informing future pandemic responses (Braun & Clarke, 2013; Giacomini, 2010; Green & Thorogood, 2018; Thorne et al., 1997; Thorne et al., 2004). A pragmatic stance and use of ID enabled the researcher to interpret the perspectives of PWUOs, while reflecting on her own experiences as she iteratively reviewed, interacted, and questioned the data – seeking multiple truths and connections. In alignment with Thorne's philosophy

of interpretive description, regardless of the processes taken to analyze data, the researcher ultimately informs the interpretation of the data (Thorne et al., 1997; Thorne et al., 2004). Thus, the researcher acknowledges her positionality and how it contributed to her interpretation of the data; however, through this awareness, she ensured no undue liberty was taken in her interpretations and findings. The researcher challenged her reflections, impressions and interpretations through detailed journalling and used Braun and Clarke's (2013) reflexive thematic as the method of analysis to inductively develop patterns of meaning and themes (Braun & Clarke, 2013). The study used semi-structured interviews to explore PWUOs' perceptions and experiences resulting in ten interview transcripts. The core assumptions of reflexive thematic analysis were congruent with the overall methodology and aim of research study and include:

- (a) researcher subjectivity as a fundamental tool;
- (b) data analysis and interpretation ranging from weak to robust;
- (c) coding and theme development resulting from immersion and distancing;
- (d) coding quality was not dependent on multiple coders rather than a single coder;
- (e) themes as outputs of codes;
- (f) themes forming patterns of meanings conceptualized by the researcher through systematic analysis;
- (g) data analysis underpinned by theoretical assumptions;
- (h) reflexivity demonstrated through journaling and acknowledgment of the researcher's role and perspectives, and
- (i) evolving themes within a strong framework of rigor (Joy, Braun Clarke, 2023).

Patient Oriented Research (POR) was used to support collaboration and partnership with participants (PWUOs) by including them in all aspects of the larger research project. (Dell et al., 2022). By design, the POR framework embraces principles of equity, inclusiveness, support, mutual respect, and co-design (Canadian Institutes of Health Research [CIHR], 2019; Donald et al., 2022). This approach involved including people with lived experience, PWUOs, in all aspects of the research, including conception, design, data collection and analysis, and findings (CIHR, 2019; Donald et al., 2022). During the first stage of the study, people with lived experience, referred to as peer advisors, who during the initial waves of the pandemic identified as using opioids were recruited as partners in the research process. Five Peer advisors were recruited for the larger research project, two Peer advisers with lived experience were recruited within NSM. Educational sessions were provided on POR and qualitative research to support capacity building and trust. Once this education was completed, the Peer advisors actively participated in developing the study design including the consent, semi-structured questionnaires, and recruitment posters (see Appendices F, G, H). After the education and design were completed, this initial stage of the research design and planning concluded successfully, with approval from the Research Ethics Board (REB) at Waypoint Centre for Mental Health Care, the Centre for Addictions and Mental Health (CAMH) and the Office of Research Ethics at the University of Waterloo (REB #46241).

Setting. The study was conducted in Simcoe Muskoka, a region of Ontario experiencing higher than provincial rates of opioid toxicity deaths (PHO, n.d.). The region includes urban, rural and remote communities. As PHMs were rapidly implemented, health and social service availability, and staffing impacts were significantly impacted in this region.

Data. This study was based on a subset of data that was part of a larger two-site study co-lead by Waypoint Centre for Mental Health Care located in the North Simcoe Muskoka region (NSM) and the Centre for Addiction and Mental Health (Toronto) entitled “The collateral effects of COVID-19 public health policies:

Perspectives of people who use opioids and those closest to them using a patient-oriented research approach within a learning community framework.” (Grant # 187039): The data for this thesis were based on transcripts from the NSM obtained with permission from the Waypoint Research Institute and approved through the University of Waterloo Research Ethics Board (#46241). This subset of data corresponded with the policy analysis focusing on impacts of the PHMs specific to the NSM region. The following section is a summary of the data collection process for the NSM region leading up to the completion of the written transcripts.

Recruitment. Flyers and posters were developed for the recruitment of PWUOs and posted in clinics, outpatient units (Penetanguishene and Midland, Ontario), and community agencies such as the Gilbert Centre in Barrie, Ontario (Appendix H). The study purpose and inclusion criteria were outlined on the poster, as was contact information from the lead investigator and details regarding remuneration (\$25.00 on completion of the interview). Funding to support the remuneration for participation was provided through a CIHR Catalyst Grant. Service providers and Peer Advisors involved in this project provided valuable input regarding ways to approach and recruit participants, including identifying locations and timing to engage PWUOs, and the importance being present over several days to build trust. Participants discharged from the concurrent inpatient programs, were contacted by the program for participation, and those consenting were enrolled. Participants could withdraw or discontinue their participation at any time and were informed of this at the outset of the interviews and were informed of this during consent and again at the outset of the interviews. No participants withdrew from the study, and all that volunteered met the inclusion criteria.

Purposeful sampling. Following Braun and Clarke’s (2021) approach, purposeful sampling was employed to select participants who were most likely to provide rich and relevant data for the study. This approach allowed for the selection of participants that would contribute insights to advance the aims and questions of this project (Braun & Clarke, 2021). This approach ensured participants were using opioids during the

identified period. This is unlike convenience sampling where participants are selected based on ease of access, risking misalignment with the research aims, rather purposeful sampling intentionally identifies participants whose perspectives illuminate issues under investigation (Andrade, 2020). The approach is congruent with, and essential components of ID and reflexive thematic analysis (Braun & Clarke, 2021, Thorne et al., 2004)

Sample size. Eleven participants were recruited and interviewed from the NSM region. Drawing on Braun and Clarke's (2013) guidance on conducting a small research study using interviews, they suggest a sample size of six to ten interviews as appropriate. As such, a sample of eleven participants using semi-structured interviews was deemed appropriate.

Inclusion/exclusion criteria. Participants were required to be 18 years or older, identified as having used opioids during the pandemic. Participants were required to be out of active inpatient treatment for a year, as the Peer Advisors (people with lived experience) wanted to ensure engagement in the research interviews would not be triggering during their active treatment or recovery phase.

Consent. Consent was obtained through a variety of methods including face-to-face or virtually depending on their preferred method of contact. The consent form clearly outlined; the research team, the purpose of the research, participant role in the research, risks and benefits, and voluntary nature of interviews, confidentiality, rights, participant protections, remuneration, conflict of interest, contact information, and audio taping of interviews (See Appendix F). Signatures were obtained prior to proceeding to interviews (electronically if virtual or signed in person). Participants were provided with \$25 for their time. All participants were advised that a second interview maybe possible if clarification was needed; none were required.

Data collection. Once informed consent was obtained and entered into REDCap, the interviews were conducted in person (the majority of interviews) or virtually depending on participant comfort. The interview guide provided the participants with the study purpose, voluntary nature of interview, and the

ability to stop the interview at any time, and information about audiotaping of the interview. Once consent was confirmed and the guide was reviewed; the participant was advised that audio recording would commence. The interview questionnaires started with basic demographic data related questions (Appendix G). The demographic data, which were entered by the RA and were de-identified and assigned a number in REDCap software post interview. Both the Peer advisors and service providers recognized the potential that the interview may trigger harmful memories, so an information sheet was developed outlining supports and all participants were made aware of this information at the start and conclusion of the interview (See Appendix I). The remainder of recorded interviews were manually transcribed by a second RA. The participant responses and interviewer questions were identified as Participant and Interviewer (shortened to P for PWUOs and SP for service providers). Each participant was de-identified, or any other identifying data was removed then entered under the assigned number. Each line within the transcript was numbered. The audio tapes and the transcribed transcripts were saved by participant number in a secure, password protected research file.

Data analysis. As mentioned above, an RA at Waypoint Centre for Mental Health Care entered the data into REDCap; both demographic data and full transcript were entered without modifications or grammatical corrections. The RA removed any names or identifying information. One master file was created with identifying information and participant numbers which was password protected and saved in a separate file with only lead RA having access in case a participant wished to withdraw. No participants withdrew from the project. The researcher (LA) was granted access by authorized Waypoint staff to the file containing the numbered audio tapes and matching numbered written transcripts on a Waypoint computer. The transcripts were subsequently entered and saved within NVivo 14 for ongoing data analysis, coding, and thematic development.

Reflexive thematic analysis was undertaken using Braun & Clarke's six-step process (Braun & Clarke, 2013; Joy, Braun & Clarke, 2023).

Step 1 involved familiarization with the transcripts, listening to each interview, followed by repetitive reading of the eleven transcripts. Journaling impressions and reflections relevant to the researcher's positionality, making annotations within the text of various thoughts and impressions, and highlighting areas congruent with the research objectives and overall aim.

Step 2 commenced with coding, deconstructing transcripts into granular codes captured under larger parent codes or categories arising from semi-structured questions using NVivo. Coding was iterative and required multiple reads of the transcripts, pausing and re-reading with annotations included to capture thoughts and impressions. Once completed, the parent codes and granular codes were reviewed with the committee members for feedback and further refinement.

Step 3 commenced with reconstruction of granular codes into larger codes and then initial themes organized within question-based parent codes. Codes began to collapse into initial themes. A tabular spreadsheet displayed initial themes with all the supporting codes, numbered by participant.

Step 4 & 5 involved the continued and iterative refinement of themes, supported by the most impactful codes. Themes evolved, with subthemes which were reviewed to ensure relevance, and to avoid overreliance on key participants. The final themes, subthemes, and codes were shared with the committee for feedback, clarification, and accuracy.

Step 6 commenced with the write-up of the findings. The thematic analysis resulted in four overarching themes, each with subthemes and codes, three of the four themes depicting negative perceptions regarding the perceived effects of PHMs. The theoretical constructs presented in Chapter 1 - stigma, vulnerability and disparity, syndemic theory, were then assessed for their presence within the final inductive themes and included in the discussion.

3.3 Results

Sample characteristics. Of the eleven participants, from NSM, nine were male, eight self-identified as white, and ranged in age from 25 years to 54 years. The majority identified as male (seven) with four

identifying as female. All participants reported using opioids during the period of interest. Living situations varied with most having some form of housing but were transient, either living with family, friends, or ex-spouses with some being homeless. Most participants were actively using opioids at the time of the interview and taking opioid agonist therapy. Some also indicated poly substance use in addition to opioids or opioid treatments.

Qualitative results. The findings revealed overwhelming negative consequences of PHMs for the PWUOs residing in the NSM. Four overarching themes were developed: 1. Dark times; 2. Increased disparity; 3. Worsening health - from bad to worse; 4. Some good happened. Participants reported mistrust of the government, and pandemic messaging regarding precautions combined with experiences of ambivalence, loneliness, and alienation. Combined these perceptions may have contributed to their compliance with the PHMs, and willingness to seek out the help or services. The PHMs intensified prior inequities by further increasing barriers to services through closures, treatment delays, transportation disruptions, shifts in care practices such as virtual care. These barriers contributed to deteriorating mental and physical health, increased substance use and relapse, exposure to a more toxic drug supply accompanied by unsafe practices such as using alone. While some positives were identified, such as take-home carries, and some conveniences associated with virtual care, the overall effects of the PHMs were associated with the worsening of harm for PWUOs in this region.

Theme 1: “Dark times”. This first theme reflected the negative perceptions broadly shared by PWUOs, illustrating a pervasive sense of mistrust, emotional disengagement, and social disconnection. Subthemes related to perceptions of mistrust and conspiracy were held by almost all participants, specifically towards government agencies and the PHMs used. PWUOs conveyed statements that demonstrated COVID-19 was exaggerated or entirely false, which may have contributed to non-compliance with PHMs and seeking out services. In addition to this subtheme, the second subtheme shared by the majority of participants was ambivalence and emotional detachment, demonstrated

through intentional resistance towards the PHMs and associated restrictions. PWUOs also expressed feelings of alienation and loneliness associated with quarantine and isolation measures, social distancing, masking, and reduced interpersonal connections, such as through simple handshakes. Together, these two subthemes convey skepticism and resistance among PWUOs and the effects of profound social and quarantine-related isolation.

Subtheme: Mistrust. This subtheme was based on statements suggesting a high degree of suspicion, skepticism, and confusion. Participants' mistrust of government agencies and PHMs was described using emotionally charged words such as "a sham..." and "the lies and the fake numbers," conveying a sense of betrayal. The rhetoric expressed not only disbelief, but resentment and confusion, with some participants perceiving manipulation by government agencies with a darker agenda, where the pandemic and resultant PHMs were being used to reduce the numbers of PWUOs as demonstrated in the following comment:

P.11: I was confused and unsure and didn't know what to believe really... If it was even real or not. I wasn't sure if it was just another way to thin out the herd. There was a lot of questions and concerns about those things.

Although not specifically stated, the level of mistrust shared by most participants may have affected their willingness to seek services, leading some to prefer distancing themselves as a form of self-protection, given the above beliefs about "thinning the herd." Collectively, these emotions help explain how mistrust extended beyond belief into behaviours that affected compliance with PHMs and contributed to withdrawal from or avoidance of services.

Subthemes: Ambivalence, alienation, and loneliness. Most participants expressed emotions conveying ambivalence, alienation, and loneliness. Ambivalence was conveyed through statements expressing emotional detachment and defiance. There was a repeated emphasis on "didn't care" and the insistence on autonomy "you can't tell me" and resistance to perceived control "I am not letting anybody

tell me I can't do something.” These comments portrayed the conflict between personal agency and externally imposed restrictions, suggesting the ambivalence expressed resulted from the rejection of perceived authority over their autonomy.

P.17: I don't go to restaurants or anything like that...I went to the grocery store whenever I wanted and um, I made obscene costumes to go with funny masks and helmets and stuff like that and I like, oh yeah [laughing]. I did it on purpose, made a big scene about it. Alright, want a mask? Well here we go, I got a hard hat too. You know?

Participants also expressed a sense of alienation and abandonment. The following statement described by the participant “*threw me...in a rubber room*” conveyed both physical and emotional alienation, suggesting being shut away without supports or dignity.

P.11: They pretty much threw me in a rubber room is what it felt like, with a book and no services were available because I was quarantined, but nothing was really available to make up for that almost. And I know that you can only do so much, but I was still at that point going through withdrawals.

Participants conveyed loneliness from emotional and social isolation and diminished human connections they associated with the PHMs. Social distancing and masking were perceived as barriers to emotional and physical interactions, described as a “veil” that reduced warmth, familiarity, and connection “I couldn’t tell who people were.” Participants who chose to not wear a mask, or couldn’t find one, identified experiencing further alienation “people would cross the road.” These changes likely intensified feelings of loneliness, as this cohort was highly marginalized prior to the pandemic. Substance use, regarded as a coping strategy for social and physical isolation, increased because of effects of loneliness.

P.2: there was social distancing orders in effect, having to wear a mask everywhere, that kind of added a veil to the services ... it just made it so much more uncomfortable and not like personable....But during the pandemic, a lot of it was lonely, using trying to cope.

Theme 2: Increased disparity. The second theme reflected how PHMs during COVID-19 intensified existing barriers to service for the participants by restricting access from closures, long waits, lineups from reduced capacity, treatment, and testing delays. Participants speak about challenges created by closures to social and community agencies, including reduced housing and access to food. Rapid shifts in practice, such as virtual care, caused additional barriers to service due to limited access to the internet (previously available in libraries for example), technology, or the ability to engage in a meaningful manner. Finally, transportation issues led to being stranded or limited their ability to attend appointments or access the pharmacy. Collectively, the theme Increased Disparity resulted from the participants' inability to access resources such as quality health care, social connections, and economic resources to meet their basic needs. Subthemes included testing and treatment delays; closures and practice changes, transportation issues.

Subtheme: Testing and treatment delays. Statements by the participants conveyed feeling degraded due to inadequate testing stations "at the side of a highway at a weight station " and frustrated by delayed test results, which prevented access to "detox" beds, which required negative results. Long waits - "the lineup was massive every day... In the cold too "and "I was trying every way I could to get in, to stay off the opioids" contributed to emotional exhaustion and relapse " I started using them again." The added effort required to get to, or receive, supports was too much for some participants already struggling. Masking requirements created additional barriers causing delays in treatment "couldn't go into the clinic without a mask" and "give me a fucking mask then, well we don't have them." These statements draw attention to the consequences of limited, or no PPE supplies being available to community services.

P.2: I know at the time some stuff was kind of delayed and um, whatever stuff I was trying to access it made it harder and it just kind of pushed me away because now it I know have to jump through this many hoops to get to stuff and I am already struggling kind of thing you know?

Subtheme: Closures and shifts in Practices. Another strong subtheme voiced by all participants related to their inability to access services from the closures resulting from the PHMs and the rapid change in practices, such as virtual care services. Closures of social services and community supports intensified precarious living circumstances by further limiting access to food and housing. Participants described their inability to access shelters “I went out on the streets and I didn’t have nowhere to go.” Comments indicated desperation and going days without food, turning to crime in efforts to find food:

P.13: Yeah it was difficult because a lot of times like staying in a tent or staying somewhere like that, you couldn't get resources because they didn't, they had so many trips to make because they had so many more people that they had to feed so they couldn't deliver to people like me who were in isolated areas or parks or wherever we had our tent set up to help us out so a lot of times we would go a couple of days without food or we would have to steal to get it.

Most participants commented on the use of virtual services Although well intended to provide access to services, virtual services caused the opposite for some of the participants. Challenges such as no internet, closures of community agencies which had unintended consequences such as off access to free internet “there was no, Wi-Fi... no library, everything was closed.” In addition, understanding how to use the technology, being well enough to access the services, and remain focused long enough were also raised:

P.5: Um, I tried to get on the, like the NA [Narcotics Anonymous],..and stuff like that, through Zoom...So I tried that a couple times and I was just, I wasn’t focused in and I wasn’t in it because I wasn’t there.

These comments demonstrated how well intended policy decisions, such as the shift to virtual services, implemented without additional supports, seemed disconnected from the reality of the struggles certain populations faced. Without mitigation strategies, these participants provided insight into how virtual services were inaccessible, unhelpful, and an added barrier to services they had to navigate.

Subtheme: Transportation issues. Some of the participants described transportation issues during COVID-19, and how this affected their ability to access services and support, including their families. Issues of becoming stranded for prolonged periods of time in unfamiliar locations were raised “got me stuck in [], I was stuck there for a few months.” Public transportation was closed, then significantly limited due to social distancing, and capacity limitation. As a result, those without cars could not get to the services they needed “I didn't have a car at the time, so it was hard for me.” Transportation issues combined with the above inability to access internet, or services, likely resulted in a sense of profound isolation for the participants. The social and physical isolation, combined with the frustrations from their inability to be mobile, and access to services, likely resulted in returning to harmful coping strategies, such as relapse and using substances.

P.3.: Like for sure the transportation was brutal. Um, so the [transportation] only allowed so many people on the [transportation]....Right. At the time. And you're only allowed so many people on transit from the [transportation] to here to do all that, so that was very frustrating.

You had to take the [transportation], take the bus, or find your own ride at the time to get to the clinic. So that was hard in itself, so that's where my opioid use kind of kicked back in because I'd rather just stay home, find it somewhere at home and then come into town.

From the PWUOs' perspectives, PHMs intensified, and added to existing barriers to services, increasing isolation, desperation, and frustration. From the comments, this deepening disparity caused a return to harmful coping strategies, with participants commenting on relapsing and increased substance use.

Theme 3: Worsening health – from bad to worse. The third theme described the significant deterioration by all participants in their social circumstance, their physical and mental wellbeing over the initial course of COVID-19. Participants described worsening stress, anxiety and depression, as well as physical issues including weight loss and injuries, which they linked to worsening substance use. Participants commented not only on increased use, but on the changing drug supply and riskier practices they engaged in. Subthemes included: 1. Worsening health; 2. Worsening use (including new use and relapse); and 3. Harmful supply and practices and beliefs (using alone, titrating).

Subtheme: Worsening health. The subtheme worsening health includes both mental health and physical health. All participants described increases in stress, anxiety, and, or depression, with some comments specific to chronic pain and injuries “an injury, my foot,... it got infected, it was a shit show,” which resulted in a return to opioid use to deal with ongoing, unresolved pain related issues. As the participants described increasing social isolation, they felt this resulted in deepening their anxiety and depression, they felt this deepened their anxiety and depression, which they then related to their relapse, and increasing substance use: “I started using again right. So it made it even worse.” This contributed to an unhealthy cycle of worsening health and use. Other comments described their inability to be with friends, and being alone contributed to their worsening mental and physical health resulting in relapse and increased use.

P.13: Depression, yeah because even though I liked to be alone a lot, I am also social a lot of the times so that bothered me because I didn't really have any friends so I didn't have anybody to socialize with but I wanted to. ...then when the pandemic hit I started using again and it increased....Because I was spending more time by myself and because of my physical health deteriorating.

Overall, the narratives shared by the participants provided bleak insights into their lived experiences, where their wellbeing was significantly compromised physically and mentally resulting in worsening use and further deterioration in their circumstances.

Subtheme: Worsening use. Almost all participants admitted to worsening drug use during the initial phase of the pandemic, which they associated with lockdowns, social isolation, boredom, and worsening mental health. Participants were open about their worsening use, being specific about the level of increase “From one point a day to five points a day.” They described being “locked inside” and cut off from connections, resulting in “the boredom of the pandemic” and the fear associated with the pandemic that further compounded social isolation *and* being “so scared and avoiding one another” lead to worsening use. Another participant described the unintentional consequences of additional financial supports from the Canadian Emergency Response Benefit, which provided financial supports of \$2000/month to those who qualified and were affected by the COVID-19 pandemic. P.11 offered: “I can honestly say with the COVID cheque coming it, I could definitely do more because I had, you know, people had the income to spend more which of course, I could do more then.”

Subtheme: Harmful supply. Comments by some participants, described a changing drug supply that was more unpredictable, potent, cheaper and from unknown sources. As supply became limited “oh it's harder to get shipments in,” due to border restrictions, the supply changed to increase smuggling success “we can put a smaller package...to smuggle that in” and was described as being more potent “more of a punch.” The unpredictable supply created opportunities for dealers and criminal elements, who were transparent about the risks this created for PWUOs:

P.16: it's made by people like me, or other people, street people even. Just like, you know it's not pretty with that shit.... Because it was too expensive to use hydromorphone cottons. I ripped fentanyl and it was a lot stronger and known as the cheapest.

Participants expressed increased and riskier use as they attempted to navigate these hazards and dangers while facing limited supports and services. They described practices they felt would help keep them safe or provide some perceived control. Many participants expressed resorting to using “usually alone” due to the PHMs. To offset this risky behaviour, they described practices they felt would help avoid overdosing, such as “titrate the dose” or using methadone as it “fills your dopamine receptors” so for those not on methadone, they felt their chances of overdosing were greatly increased “not on methadone has a 90 percent chance of overdosing.”

Theme 4: Some Positives. Although not prevalent, and amid the many hardships, several participants conveyed some positives. With the highly adulterated drug supply and increased number of overdoses being witnessed, which “scared the shit out of me” some became motivated to survive by “trying to get clean” and avoid dying. Some comments indicated changes in practices, such as increased carries for take-home methadone, which seemed to create a sense of perceived trust and respect.

P.2: I was always given carries from the start because I kind of developed a really good relationship with my doctor so she started off giving me 1 week carries so my pharmacy when I was down in [City name], and this was during the pandemic, I could just walk down and get it once a week so it's not like I was having to go there every day.

Also, there were some positive experiences shared about virtual services, particularly the convenience they created:

P.17: ...the doctor can be on the computer screen, he can see what you are talking about and then he has a nurse practitioner or male or female there and then they do the work if you need something looked at or whatever. Yeah. So that's basically the only thing, it made it convenient for those types of people that are employed.

3. 4 Discussion

The study found that the perspectives shared by the participants from the North Simcoe Muskoka conveyed profoundly negative effects by the PHMs used during this timeframe. Feelings of alienation and mistrust, service delays, barriers to accessing services, worsening health, worsening use, and a changing drug supply all contributed to experiences that could be best summarized as harmful. Implications from the interviews and resultant themes are now considered.

Theme 1: Dark times. Participants shared a level of mistrust of government and conspiracy-based thinking that was predominant and surprising to the researcher. References to ‘thin out the herd’ and ‘it’s a sham’ and ‘fake’ indicated dark interpretations, general mistrust, and disbelief of the pandemic. It was unclear whether this attitude hindered access to services or compliance with PHMs. According to Douglas et al. (2017), conspiracy theories associated with significant events offer explanations implicating powerful societies that conceal information for their own benefit. As the pandemic progressed, limited information about the virus led to high levels of uncertainty and anxiety, with misinformation being generated –conditions ripe for conspiracy-based thinking (Douglas et al., 2017; Imhoff & Lamberty, 2020; Murphy et al., 2022). Conspiracy-based thinking, intensified by limited information, offered simple explanations and causal relationships which could be false, misleading, and dangerous (Douglas et al., 2017; Monaghesh & Hajizadeh, 2020). These explanations may have offered a sense of control and safety during times of uncertainty and contributed to a sense of community (Douglas et al., 2017; Murphy et al., 2022). The PWUOs interviewed were from a geographic region within Ontario where the comments were mistrustful and filled with disbelief. One must consider if this reflected a collective narrative, a social alliance, or rhetoric used to increase a sense of autonomy and safety during increased uncertainty. Unfortunately, such thinking can have negative consequences, including reduced compliance with social norms and preventative behaviours (Imhoff & Lamberty, 2020; Murphy et al., 2022). The stronger the COVID-19 conspiracy beliefs, the lower the compliance with preventative

measures (Imhoff & Lamberty, 2020). Preventative behaviours advocated by government agencies demonstrated lower compliance by individuals with higher levels of conspiracy-based thinking (Marinthe et al., 2020). Individuals of lower socioeconomic status and those marginalized demonstrated mistrust of authorities and preventative measures (Freeman et al., 2022; Magarini et al., 2021). Based on these findings, the participating PWUOs who shared feelings of being marginalized and experiencing socioeconomic struggles, may have experienced mistrust as a barrier to their accessing services. Participants' conspiracy beliefs may have interfered with their compliance with PMHs, which may have increased their risk for contracting COVID-19. This hesitancy to adopt PMHs, combined with limited access services, may have created a form of double jeopardy.

Findings from this study could guide future proactive communication strategies during emergency public health events. Ensuring trusted resources, websites, and apps are visible, and discussed by service providers in areas where PWUOs congregate is essential. Staff must rely on trusted resources to ensure accuracy of information shared with PWUOs. Service providers working within these environments often have long-standing trusted relationships; ensuring these services remain open and accessible can contribute to the transfer of accurate information, encourage safer practices, address false narratives, and identify changing drug supply and adulteration in real time. Government agencies need to anticipate high levels of mistrust during future pandemics. Co-designing communication with individuals who have lived experience could ensure accurate information is delivered where it is needed, in a manner that PWUOs understand, and tailored to address circulating rhetoric and conspiracy theories. Finally, further research is needed specific to this population to better understand the effects of conspiracy-based thinking and access to services. Involving people with lived experience to identify strategies to mitigate levels of mistrust and conspiracy-based thinking is crucial.

Themes 2 & 3: Disparity and worsening health. Participants shared that they experienced greater difficulty in accessing services, including treatment and social services that they relied on for housing and food. Disruptions in drug supplies increased risks from an already declared public health crisis and escalating opioid toxicity from adulteration, noted in previous major public health events (Mitra et al., 2024; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022; Zolopa et al., 2021). Participants expressed riskier behaviours resulted from PHMs, such as using alone due to their inability to access harm reduction services. Services in the area were closed or reduced to meet Infection-control measures for distancing requirements, testing requirements, or limited personal protection equipment. As a result, participants described delays or the inability to access services such as treatment beds, clinics, or other supports. The added effort required to navigate the restriction of the PHMs, simply made access too difficult. Consequently, almost all participants expressed relapse and increased drug use to counter worsening conditions, including stress, anxiety, depression, physical issues, boredom and loneliness. These findings are congruent with other studies (Hutchinson et al., 2023; Mitra et al., 2024). Disruptions caused by PHMs further increased the inequities for participants residing in the NSM region, who were already experiencing higher rates of opioid toxicity deaths (Brens et al., 2018; Eisener et al., 2022; PHO, n.d; Thomas et al., 2020). Thomas (2020) provides rural regions often face additional infrastructure challenges associated with limited transportation, travelling greater distances to services, unintegrated services, and limited public health services, resulting in increased levels of harm, conditions demonstrated in NSM region as outlined in chapter 1 (PHO, n.d.; Thomas et al., 2023). These worsening conditions could have been anticipated, as PWUOs have demonstrated similar responses in previous large-scale emergencies (Mitra et al., 2024; Tam, 2020; Zolopa et al., 2021). The pandemic, combined with the pre-pandemic opioid crisis and limited access to support in the region, created a syndemic response that worsened the health and harm PWUOs experienced (Martinez et al., 2020).

Further research is needed to identify which measures contributed most to harm and how targeted measures could reduce the level of harm PWUOs experience during a future pandemic response.

Sadly, what occurred during the pandemic could have been anticipated based on previous research and known vulnerabilities. Why services for PWUOs were not considered essential, nor were additional targeted supports provided, raises questions of stigma. This speaks to foundational issues informing decisions regarding the use of broad PHMs without added mitigations to better support PWUOs. The harm created or exacerbated through the broad application of PHMs to address the “greater good” was not due to ignorance; as previous research demonstrated escalating harm during periods of major events (Zolopa et al., 2021). Concerns about the service limitations and potential harm were documented in Ontario Health meeting minutes (Ontario Health Mental Health & Addiction COVID-19 Response Table, 2020a, 2020b). Consequently, macro-level structural stigma, combined with meso-level public stigma, are considerations (Cheetham et al., 2022). The fact that services considered essential and able to remain open included liquor and cannabis stores, while treatment beds and community supports closed, further highlights the inequities and potential for stigma contributing to these policy decisions. Education and training could increase awareness; however, addressing stigma requires scrutiny of policies at a macro and meso-level that contribute to, and create barriers to access and actual harm for PWUOs. Engaging PWUOs in pandemic preparedness at a provincial and local level would assist in identifying and calling out policies that hinder access. Dedicated policy research is needed, partnering with PWUOs to identify stigmatizing policies, and develop strategies for future pandemics.

Theme 4: Some positives. The rapid switch to virtual services was not without consequences. Several participants noted improved access since they did not have to leave work or travel, the majority struggled due to limited or no internet, no phones, and no ability to access free public internet. Several participants were not well enough or “focused” to access various platforms (e.g., Zoom), remain engaged, or overcome

the impersonal nature of virtual sessions. Consequently, the shift to virtual services increased vulnerability and care disparity by further limiting their access to services. The rapid shift to telehealth was advantageous for the more affluent class, or referred to as the “laptop” class,” comprised of well-educated, more affluent individuals able to work from home and transition easily to virtual environments (Klein & Begen, 2024). However, this was not the solution for all people. Meeting minutes from the Ontario Health committee, the Ontario Health and Mental Health & Addictions COVID-19 Response Table, raised issue of clients not being able to access virtual services due to the lack of internet or cell phones. The issue of limited virtual care licenses was also raised (Ontario Health Mental Health and Addictions COVID-19 Response Table, 2020, March 26, October 8).

Further research is needed to understand how virtual care impacts access to services, particularly for vulnerable populations such as PWUOs. Identifying and evaluating supports facilitating access to services is an area worthy of further research. Finally, understanding the efficacy of virtual care in addressing the needs and treatment for PWUOs is essential. Research could examine which types of virtual support are successful (over time, stages of recovery, specific techniques). Virtual care may not be effective for individuals who are too acute or unwell, nor is it accessible for those without internet. It was a tool accepted to assist those who had the means to access it. However, if other services to support and treat PWUOs had remained open, those ready to access care, or more acute would have had options available during a time of profound need.

This study raised important questions regarding decisions made that suggest a potential “blindness” to this vulnerable population. Decisions made for the “greater good” resulted in broad sweeping measures, with some mitigating measures introduced to support other vulnerable populations. Certainly, this population was vulnerable and in need of support, however, a coordinated, mandated response did not occur even when harm was known – again raising questions of stigma. Learnings from this study, and further research, may help inform future approaches to minimize harm and disparity.

Services that support PWUOs must remain open and well supported during crisis. Additionally, communication strategies require further research to counter mistrust and conspiracy-based thinking. Finally, increased understanding is needed regarding virtual care – it's efficacy and role in supporting effective treatment and access for PWUOs.

3.5 Strengths & Limitations

Being able to have people with lived experience assist in the development, design, administration of the interview tool, ensured that their lived experience informed the approach and tools developed and used and contributed to the rich responses that were obtained. Braun & Clarke's Reflexive thematic analysis (2013) was well-suited for addressing the research questions and overall aim of this research. The approach enabled the researcher to deeply reflect on her positionality in the interpretation of the data, supported a more independent analysis of the data, and the development of themes enabling several practical policy and practice options to be developed. The researchers' positionality enabled her to have an in-depth understanding of health care systems, particularly in the NSN region, before and during the pandemic response, which assisted in this research.

The findings of this research were specific to the participants within a specific region of Ontario Canada. Readers of this study need to consider transferability of the results in light of the specific study setting and region as described in the methods. Recall may need to be considered, given the study commenced in 2023 with participants relying on their memory from 2020 regarding services and PHMs. Aids were developed and provided in efforts to orient the participants to the timeframe of interest. While recall bias may have been an issue, the time since exposure may have been a strength, allowing participants time to reflect and assess their experiences in a more meaningful way than what may have been afforded when the events were unfolding.

The majority of participants in the transcripts were white and male. This was a subset of a larger two site sample. The researcher analyzed all transcripts from NSM, not selecting a smaller, more equal representation of sexes. This over-representation must be considered when reviewing the findings from this study. One final limitation related to participants were required to speak English. This may have affected the sample, however the logistics of providing translation services in certain areas was not practical.

3.6 Conclusions

The participants of this study from the North Simcoe Muskoka region of Ontario, an urban and rural mixed region, reported predominantly negative impacts from the PHMs implemented during the first ten months of the COVID-19 pandemic, with increased harm. These findings support other studies regarding the effects of rurality on scarcity of resources, limited infrastructure, and the association to increased harm for vulnerable populations (Gaynor & Wilson, 2020; Thomas et al., 2020, PHO, n.d.). However, from their experiences, new knowledge was gained regarding how the PHMs created unintentional consequences, such as the shift to virtual care, limited PPE, and testing delays which created additional barriers to accessing services for PWUOs. The negative effects of transient housing and the presence of CERB are policy decisions that may have contributed to increased substance use and have future policy considerations should another pandemic arise. The responses demonstrated an overall negative relationship between PHMs, and the harm experienced by PWUOs in this region. The key question becomes what needs to occur to ensure future emergency scenarios do not repeat the same response, resulting in the same harmful consequences experienced by the participants. Emergencies, such as pandemics are certain to occur again; yet broad sweeping PHMs targeting the general population fail to support, and exacerbate the harm experienced by PWUOs, particularly in more rural areas. It is essential to develop targeted, equitable, and evidence-informed approaches that anticipate the need of PWUOs who continue to suffer from ongoing harms associated with opioid use and toxicity.

**Chapter 4: A Retrospective Policy Analysis to Elucidate Factors That Influenced Policy Decisions
Related to Public Health Measures Used and Effects on PWUOs in the Province of Ontario during
COVID-19**

4.0 Introduction

As COVID-19 rapidly spread across the globe with increasing case numbers in early 2020, another public health crisis, opioid-related deaths, was worsening domestically and globally (Gomes et al., 2023b; Imtiaz et al., 2021; Ledlie et al., 2024; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022; Russell et al., 2021). Canadian opioid-related deaths doubled between 2019 and 2021, with the 3 provinces of Alberta, British Columbia and Ontario accounting for 88% of the death toll (Ledlie et al., 2024; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022). In the initial three months of the pandemic, PWUOs experienced marked increases in harm as PHMs were implemented, experiencing a 38% increase in opioid-related deaths from March 16 to June 30, 2020, compared to the previous three months (Public Health Ontario [PHO], n.d.).

This paper explores the measures undertaken during the first ten months of the pandemic within the province of Ontario, Canada and examines the potential impacts on opioid -related harm and deaths during this timeframe. Regional examples provide context for the interpretation and application of public health measures (PHMs). The timeline selected, the first ten months of the pandemic, ensures the PHMs instituted were non-pharmacological in nature and not affected by COVID vaccines, considered a confounding variable that began in January 2021.

Prior to the COVID-19 pandemic, the province of Ontario had initiatives in place to address the increasing opioid overdoses and deaths, including safe consumption sites, naloxone kit distributions, opioid agonist therapy (OAT), hospital inpatient and outpatient services, detox beds, rapid access clinics, pain clinics and private clinics (Hutchinson et al., 2023). Evolving guidelines and medical curriculum

changes had occurred to reduce the use of opioids and address pain-management approaches (Dowell et al., 2022; McMaster Health Sciences, n.d.) Although available, these initiatives were not distributed equally across the province, with large geographic areas having limited or no access to these resources (Brens et al., 2018; Hutchinson et al., 2023). Issues of service coordination and integration were notably problematic before the pandemic (Hutchinson et al., 2023; Thomas et al., 2020). As the pandemic progressed and gained momentum by March 2020, newly introduced PHMs interrupted many of the existing addictions services through closures, reduced service hours, isolation, and transportation disruptions (Hutchinson et al., 2023; Canadian Centre on Substance Use and Addictions [CCSA], 2020).

This study conducts a retrospective policy analysis using the 3I+E framework to analyse and organize the factors that influenced policy decisions related to the provincial and regional PHMs applied in Ontario, focusing on how the measures impacted PWUOs and the staff who cared for them within the North Simcoe Muskoka (NSM) region (Lavis et al., 2002; Lavis et al., 2012). The framework consists of three "Is"- institutions, interests and ideas and an "E" representing external factors, which help to identify how these factors interact and contribute to policy decisions (Sandhu et al., 2021). Although specific to the province and a particular region in Ontario, the interpretation and implications of these findings help address gaps in knowledge regarding policy-related decisions associated with PHMs implemented during COVID-19 and the effects these measures had on PWUOs and their SPs living within rural/urban areas of Ontario.

Purpose and Objectives

The study focuses on the timing and drivers of policy decisions related to PHMs implemented in the NSM region of Ontario to understand the effects on PWUOs and SPs during the first ten months of the COVID-19 pandemic. Within this scope, the following questions are addressed:

- a. What provincial public health policies were instituted during the first ten months of the pandemic?
- b. What interests, ideas, institutional and external factors influenced public health measures policies during the initial ten months of the pandemic and how did they contribute to the opioid crisis?
- c. What impact did public health measures related to the “greater good” have on PWUOs residing in NSM? Were mitigating measures introduced for this specific population?

4.1 Methodology

Study design. The study utilizes qualitative methodology to elucidate factors influencing policy decisions related to PHMs implemented during this timeframe. An idealist ontological position with a pragmatic orientation guides the research objectives (Braun & Clarke, 2013; Giacomini, 2010; Yanow, 2007). Interpretive policy analysis using the 3I+E framework (Lavis et al., 2012) assists in the organization and interpretation of factors effecting policy decisions during the COVID–19 pandemic. The researcher LA acknowledges her positionality during the review, analysis and interpretation of policy relevant documents (Giacomini, 2010; Yanow, 2007). As result of her experience as a leader within a large Mental Health and Addictions hospital, leading into and during the COVID-19 pandemic, LA participated in hospital, community and provincial level meetings, and had access to minutes and documents. This experience enabled LA to participate in, or listen to, decisions being made, adding context and informing her interpretation of the documents and the effects these decisions had within the NSM region and more broadly. The following two methods are used to frame the analysis:

- a. A descriptive analysis outlining the detailed chronology of PMHs instituted in Ontario, Canada that affected PWUOs.

- b. Using the 3I+E analysis, identifying areas of influence related to the policy decisions for the PHMs implemented during the initial ten months of pandemic in Ontario, and interpreting impacts on PWUOs. and SPs within a region of Ontario.

Data collection part A: Descriptive analysis of PHMs in first ten-months of COVID -19 pandemic.

Ontario's PHMs were identified through reviews of government, non-government organizations, and media sources (e.g., media releases, backgrounders, reports and statements from government officials) published between 2018 and 2021. First, government websites such as the Government of Canada, Health Canada, Statistics Canada, Public Health Agency of Canada (PHAC), Public Health Ontario (PHO) were searched to identify relevant materials related to PHM s decision making. If primary sources cited were not included, websites were excluded. Second, documents were accessed through government media websites (Government of Ontario: Ontario Newsroom), the Premier's Office website, and the health portfolio website (See Table 4.1). To assist in identifying the mortality of PWUOs in Ontario, the Public Health Ontario (PHO) Opioid tracking tool was accessed and several key reports from PHO in partnership with the Ontario Drug Policy Research Network were included. Third, documents from non-government agencies were identified by targeted web searches and reviewed for inclusion. For example, reports from the Canadian Institute of Health Information (CIHI) were accessed for specific reports regarding PHMs instituted nationally and by province, and to identify health care worker mortality (CIHI ,2022). Fourth, the Ontario Hospital Association (OHA) Bulletin list, from March 2020 to December 31, 2020, provided resources, media announcements and updates chronicling provincial policy decisions. Fifth, peer-reviewed articles were identified through PubMed, University of Waterloo Library, CINAHL, Scholars Portal Journals: Open Source; CRSN Elsevier Journals, and Google scholar using combinations of the following terms: *COVID-19 PHMs and policies, effects of PHM – Canada and Ontario; PHMs effects and PWUOs; timelines & chronology of PHMs, NPIs implemented in Ontario, in Canada and the United States of America; Public Health Powers during COVID-19, Canadian recommendations during COVID-19;*

Canadian pandemic response; Canadian and Ontario Surveillance; Ontario Health COVID Response; Chief Medical Officer of Health Ontario and COVID-19 directives/orders. Finally, meeting minutes obtained through Freedom of Information Protection of Privacy Act (FIPPA) requests related to provincial decisions (Ontario Health Mental Health & Addictions COVID-19 Response Table), regional actions (e.g., North Simcoe Muskoka Mental Health & Addictions Steering Committee), and hospital Board-level minutes assist in developing the timeline and local interpretation and applications of policy decisions, PHMs and the associated forms of authority.

The focus of this analysis is to chronicle the PHMs, including directives, orders, other forms of communication and authority, to ascertain timelines and how these decisions affected PWUOs and the clinicians supporting them. For the ten-month period, a month-by-month spreadsheet was developed. The years from 2018 (post-election) and 2019 were analyzed to better understand political decisions and contextual factors related to values of the new governing party, including decisions affecting PWUOs and the broader Ontario health system (See Appendix A). Developing a detailed chronology enables observation and understanding of the following: A) The speed at which policy changes occurred; B) the magnitude and variability of authority and the changes; and C) the absence of mitigating strategies to support PWUOs. The descriptive analysis assists in informing the second stage of the research analysis, Objective B the retrospective policy analysis using the 3I+E framework.

Table 4.1 - Data Source Table

Media		Websites		Articles/Reports		Minutes (FIPPA Approved)	
Search Dates: 2018-2021		Search Dates: 2018-2024 2004-2007 – SARS		Search Dates: 2015-2024 1995-2024 – Policy frameworks, 2004-2007 SARS		Search Dates: 2019- 2020 –	
Search Terms All releases from Office of Premier and Health Portfolio. MH&A, Health Transformation, COVID Policy analysis, legislation – bills 74, 124		Search Terms Health care, Canada, Emergency response Canada/Ontario COVID/PHMs/PWUOs/Opioids/Health care Workers/Canada/USA COVID Timelines, SARS		Search Term PHMs/PWUOs/Health care workers/COVID/Death/Ontario/Canada/USA Policy Analysis/3i+E/COVID/PWUOs/opioids SARS Commission		Search Terms all minutes reviewed, focus on PWUOs, PHMs, service impacts, system capacity, PPE, health transformation	
Source	Number	Source	Number	Source	Number	Source	Number
Ontario Newsroom (Includes Media Releases, Backgrounders/Statements Reviewed)	99 (2018) 220 (2019) 419 (2020) Total: 738	Federal Government: Government of Canada, Health Canada House of Commons, Public Safety PMO & MoH Canada	19	PubMed, Universities (Waterloo, Toronto) Google Scholar:	78	President & CEO Report to Waypoint Board of Directors. Searching Reviewed all minutes	9 (2019) 9 (2020)
Newspaper articles: The Toronto Star/CTV/CBC/Globe & Mail	65 articles	Centre for Disease Control:	2			North Simcoe Muskoka MH&A Steering Committee	7 (2020)
		World Health Organization:	2			Mental Health & Addiction Response Table	16 (2020)
		PHAC:	3				
		CIHR/CIHI:	4				
		Province of Ontario: Financial Accountability Office of Ontario	2				
		PHO	4				
		Office of the Auditor General of Ontario (Independent Office)	8				
		Ontario Drug Policy Research Network	4				
		Ontario COVID-19 Science Advisory Ontario Health	2				
			2				
		Non-Government: OHA (Bulletin List, legislative summaries, Directives)	141				
		CCSA	3				

Data collection part B: Data collection for policy analysis. A similar approach is undertaken to generate data related to factors influencing policy decisions for PHMs and PWUOs and those who care for them in NSM. First, the detailed spreadsheet chronicling major policy decisions created in Part A is a guide for policy decisions made prior to and during the pandemic until December 31, 2020. Peer reviewed articles are identified through PubMed, University of Waterloo Library, CINAHL Scholars Portal Journals: Open Source; CRSN Elsevier Journals and Google scholar without a defined date range and using combinations of the following terms: *Policy analysis frameworks, COVID–19 policy analysis, PHMs and policy analysis, policy recommendations and COVID-19/pandemics; Canadian legislations and constitution, institution, ideas and interests; policy networks and legacy; Canadian laws, Ontario legislature and laws, Health protection and Promotion Act; Canadian pandemic response, Ontario pandemic preparedness and response; PHMs and impacts on PWUOs, PHMs and impacts on Service providers and Health care workers; Opioids and Canada/Ontario; Mortality rates for PWUOs and Health care workers in Canada/Ontario; Mortality of Elderly/seniors during COVID-19 Canada/Ontario; Policy decisions in Ontario and COVID-19; Addictions and substance use policy decisions and COVID-19 and Canada/Ontario/United States.* Government websites such as the Government of Canada, Health Canada, Statistics Canada, Public Health Agency of Canada (PHAC), Public Health Ontario (PHO), Province of Ontario, The Office of the Auditor General of Ontario are searched by internet and accessed for information. If primary sources cited were not included, websites were excluded. The focus includes legislation, government structures, policy networks and legacy policies including roles and responsibilities, sources of authority and key external reports. Documents from non-government agencies are reviewed, and media outlets and articles are identified and included as sources of qualitative information related to perspectives on the various policy decisions and their potential impacts. The Ontario Hospital Association (OHA) Bulletin list from March 2020 to December 31, 2020, along with each resource, media announcement and update with embedded links is reviewed,

chronicling interest-group perspectives, critiques, and levels of influence on policy decisions. Finally, meeting minutes obtained through Freedom of Information Protection of Privacy Act (FIPPA) as described previously are reviewed to identify unique contextual perspectives from participants/contributors. These minutes assist in understanding responses to policy decisions at various levels of governance, interpretation and implementation of measures, and awareness of collateral impacts of these measures. For meeting minutes accessed and cited, formal FIPPA approvals were obtained.

Policy analytic framework. The 3I+E framework for policy analysis is chosen as the analytic framework for guiding the policy analysis (Lavis et al., 2002; Lavis et al., 2012). This framework is selected for its rigorous application for both retrospective and prospective analysis, aiding in understanding historic policy changes and guiding new policy recommendations and reform (Gauvin, 2014; Shearer et al., 2016). The framework's versatility of application within Canadian and global contexts is evident and as such selected for this analysis (Dickenson & Buse, 2008; Pomey et al., 2010; Sandhu et al., 2021).

Institutions. Institutions include government structures that administer and influence policy decisions regarding a particular problem and are inclusive of policy legacies and policy networks. (Lavis et al., 2002; Lavis et al., 2012; Pomey et al. 2010). Government structures refer to the arrangements and interplay of political parties and affiliated governmental agencies at various levels, as well as associated spheres of influence over policy decisions (Gauvin, 2014; Lavin 2012; Sandhu, 2021). Institutions also consider policy legacies, the historical and often rigid paths that shape thinking over time (Gauvin, 2014; Torfing, 2023). Historic legacies prior to the pandemic are explored to understand how health care is organized in Canada at the time of this study, including levels of authority and administrative responsibilities. The institutional analysis focuses on how structures were organized and interacted to shape health care policy decisions at various levels during the pandemic.

The analysis of institutions also examines policy networks, the relationships between government institutions and interest groups in policymaking (Gauvin, 2014; Sandhu, 2012). Analyzing policy networks helps identify which parties participated in policy processes and which engaged in influencing policy through advocacy roles (Sandhu, 2021). Different forms of networks exist depending on the degree of autonomy the state has to achieve its mandate and goals (Coleman & Skogstag, 1990). The analysis identifies the province's ability to develop and execute public policy and how, for example, business and non-business interests interacted with the province (Cashore et al, 2000). Policy network relationships are important areas to analyze, clarifying who participated in policy decisions versus those who influenced through advocacy for changes to PHMs.

Interests. Interests refer to the agendas of public and private individuals and organizations, elected officials, bureaucratic, and scholarly groups (Pomey et al., 2010). In analyzing interests, the focus is on power dynamics between government and stakeholders, determining whose voice counted (who wins) and whose does not (who loses) in policy decisions (Gauvin, 2014; Lavin et al., 2002). The analysis of interests also involves an examination of policy decisions resulting from lobbying of powerful interest groups (e.g., large for-profit companies for example) positioned to benefit or lose (Lavis et al., 2012). Given the researcher's position within health care, participation at various levels of pandemic response tables occurred. Consequently, the dynamics in power relationships, who made decisions, which priorities were discussed were directly observed by the researcher

Ideas. Ideas encompass knowledge or beliefs about what is known (e.g., research knowledge), views about what ought to be (values), or some combination of both (Gauvin, 2014; Lavis et al., 2002; Pomey et al. 2010). Ideas influencing policy decisions reflect the predominant political party's position and beliefs, such as being pro market, and business orientated (Lavis et al., 2012). When considering the pandemic, questions emerge as to what sources of evidence influenced policy decisions particularly given

the body of evidence regarding COVID–19 was limited. Key questions include: Was consideration given to the associated repercussions of these measures with respect to the underlying vulnerabilities of populations such as PWUOs and those staff supporting them? Were predominant values evident in policy decisions regarding PHMs? Were the strategies and PHMS implemented in alignment with influential professional bodies (e.g., frontline staff, public health experts and researchers)?

External Factors. The final area of analysis are those external factors influencing policy decisions (Gauvin, 2014; Sandhu et al., 2021). These factors include political changes resulting from elections, financial and economic pressures, new diseases, major reports and media events that cause urgency and demand political attention (Lavis et al., 2012; Pomey et al., 2010). External factors help raise public awareness and create pressure to advance or shift attention away from policy issues (Sandhu et al, 2021; Lavis et al., 2012). Decisions made during the pandemic, presumably are based on the urgency of the evolving situation, balancing economic and financial needs with those of public safety, dynamics that played out in Ontario (Klein & Begen, 2024). Examples of key external reports and evolving technologies are considered in terms of both harmful impacts and positive outcomes.

Data analysis part A: Data analysis for descriptive study. The researcher LA conducts the data collection and descriptive analysis independently. The data analysis is a two-step process: First, chronicling policy decisions related to PHMs for each month during the period under analysis is completed. Second, the types of decisions being made and implemented, the authority used, and implications for PWUOs and service providers are noted. Additionally, a high-level graphic depiction is developed for the first year of the pandemic and the ten-month period, highlighting major events and decisions, with details of all decisions summarized. See Figure 4.1a and 4.1b.

Figure 4.1a COVID 19 Timelines for 2020

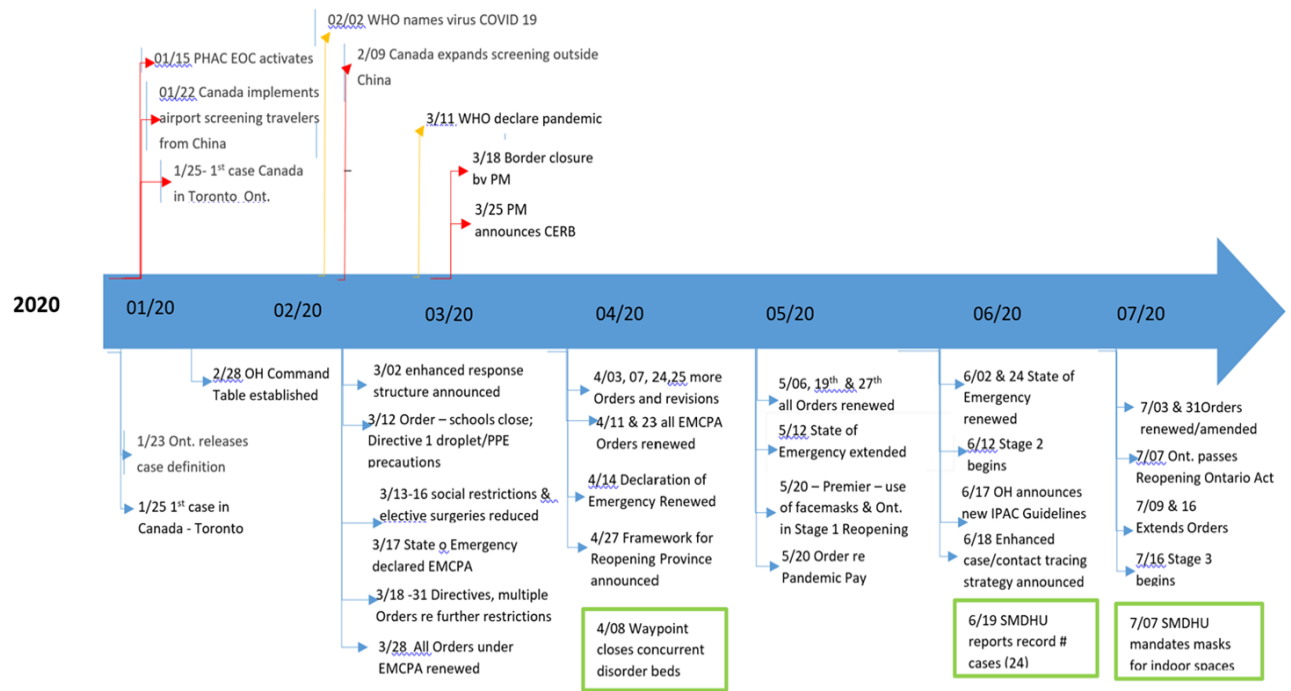
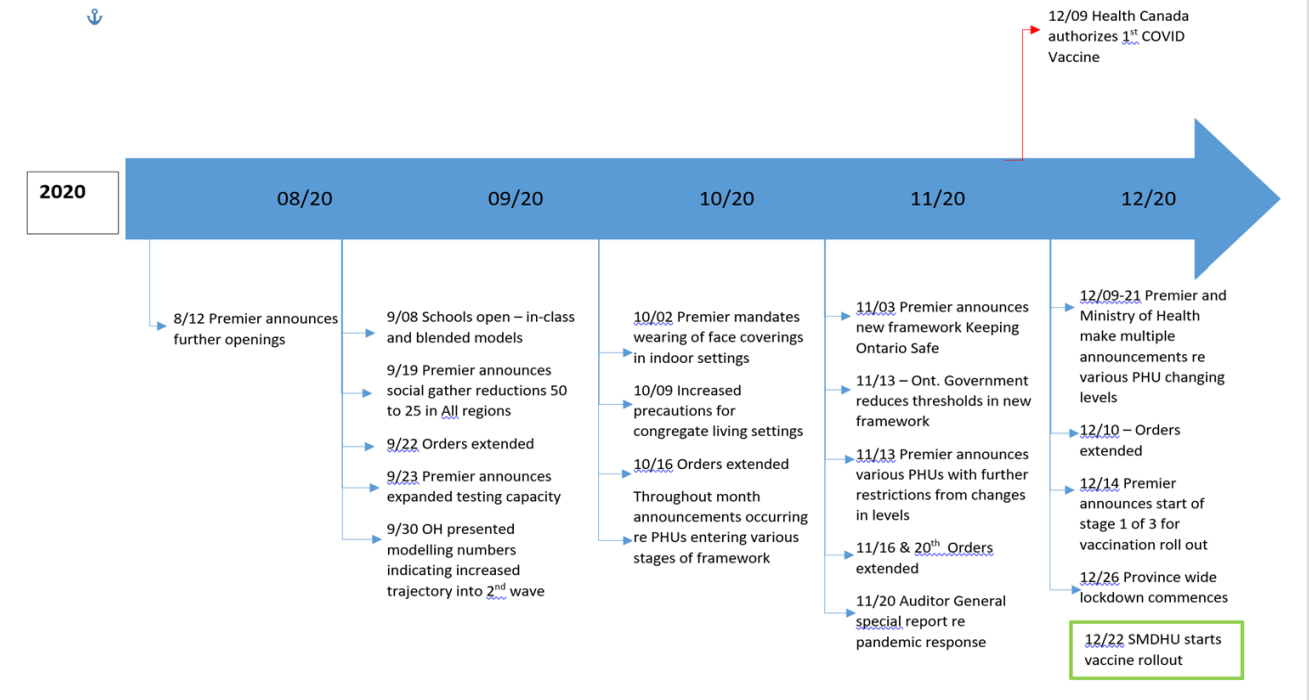


Figure 4.1b COVID 19 Timelines for 2020 continued...



Data analysis part B: Data analysis for policy study. Similar to Part A, researcher LA collates and formats the data into a large table under the four main areas of analysis for the 3I+E framework: Institutions, interests, ideas, and external Factors. Decisions, PHMs implemented, sources of authority, data sources, and resultant implications for PWUOs and SPs are entered into the table. Journaling occurs throughout the process, highlighting areas relevant to research questions, questioning impressions, and noting personal experiences. Both Part A and Part B Data analysis results are shared with investigators (Perlman, Bullock, McAiney), modified based on feedback and further consolidated

4.2 Results: Part A Descriptive Analysis

Mixed communication and lagged response at virus onset. With the start of 2020, communications about the new virus intensified. The virus had spread outside of China on January 20, 2020 (CDC, n.d.). Mandatory reporting and case definitions were issued on January 23 (Office of the Auditor General of Ontario, 2020a). Communications were tempered by ongoing reassurances that the risk remained low for Ontarians from Ontario's Deputy Premier and Minister of Health (Government of Ontario, 2020b, Waypoint Centre for Mental Health Care, 2020c). Ontario's first case was reported on January 25, 2020 (Office of the Auditor General of Ontario, 2020a; Waypoint Centre for Mental Health Care, 2020c, 2020d). Considering the known risk and spread had occurred outside of China (January 20th), Canada's response lagged, expanding screening to all airports on February 9, 2020 (Public Safety Canada, 2020, February 9). The first confirmed case in Canada from outside of China occurred on February 20, 2020 (Zafar, & Miller, 2020). Within Ontario, hospitals advocated to expand testing to include other countries of origin on February 7, 2020. Canada expanded screening to include Iran on March 4, 2020, almost a month later; Public Safety Canada, 2020, March 4).

Initial waves of the pandemic – rapid deployment of policy levers. Two waves of the pandemic occurred in Canada during 2020: Wave 1 commencing February 28, 2020, ending August 31, 2020, and Wave 2 commencing September 1, 2020, and ending in February 2021 (Hutchinson et al., 2023; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022).

Wave 1. Wave 1 represented the initial phase of Ontario's COVID-19 response and was marked by rapidly deployed and escalating measures. On March 2, the new COVID-19 response structure was announced by the province with further reassurances that the virus posed a low risk to Ontarians (Government of Ontario, 2020b) (See Appendix J). Health system transformations continued (Government of Ontario, 2020c; Government of Ontario 2020h) as did the intensifying restrictions, closures and

escalating public health measures occurring almost daily in March (See Appendix A). The pandemic was declared on March 11 by the World Health Organization; the provinces and territories of Canada responded at various intervals thereafter (Appendix K; CIHI, 2022). In Ontario, all public schools closed on March 12 (Government of Ontario, 2020e); Ontario declared a State of Emergency on March 17, 2020, under *the Emergency Management and Civil Protection Act* (1990). Throughout March and April 2020, PHMs were introduced through directives (Directives 1 to 5), including the closure of non-essential services (Directive 2), emergency orders, guidelines, and technical reports by various provincial authorities (Waypoint Centre for Health Care, 2020d; CIHI, 2022). None of the directives, reports and guidelines were specifically tailored to address or mitigate PWUOs' vulnerabilities intensified by PHM restrictions, which resulted in service closures as not considered essential to the COVID-19 response.

Concerns were escalating regarding the scarcity and uneven distribution, conservation strategies, and the quality of personal protective equipment (PPE) and were widely reported through the media, unions and interest groups (Crawley, 2020; Government of Canada, 2020a; OHA, 2020d; Waypoint Centre for Mental Health Care, 2020d). Community agencies (Canadian Mental Health Association, Rapid Access clinics, addiction and treatment clinics, pain clinics, outpatient services and primary care offices) were particularly affected, with many closing due to insufficient PPE, resulting in access issues for PWUOs as noted in minutes from the Ontario Health [Mental Health & Addictions COVID-19 Response Table] (OH MH&ART), 2020, March 26. Judicial daily monitoring of PPE was mandated on March 27, 2020, through a Ministerial Order from the provincial government (OHA, 2020f). Local agencies continued to struggle with outstanding PPE supply orders, while hospitals stockpiled existing PPE (OH MH&ART, 2020, March 26; Office of the Auditor General of Ontario, 2021a, 2021b). March ended with the federal government announcing the Canadian Emergency Response Benefit (CERB), a \$2000/month benefit for those who qualified (Government of Canada, 2020b).

As COVID numbers peaked toward the end of April 2020 (OHA, 2020k), a policy shift occurred to reopen Ontario. The new *Framework to Reopen Our Province* was announced by the Premier's Office (Government of Ontario, 2020l, Ontario Health, 2020c; CIHI 2022). Non-essential and elective surgeries resumed May 19, social gathering numbers increased, and businesses reopened (See Appendix A). Health transformation continued over the summer of 2020 with new Ontario Health Teams announced and required new funding and accountability agreements between sectors and Ontario Health while responding to the ongoing COVID-19 response (Government of Ontario, 2020n; Government of Ontario, 2020o).

Wave 2. The second wave of the pandemic commenced in the fall of 2020, with critiques of government response emerging regarding decision-making and effectiveness of the response. In September, restrictions were in place but far less restrictive than in the spring of 2020. Government announcements focused on mask production and directives for the reopening of schools (Government of Ontario, 2020p). Social restrictions remained in place, including restrictions on unmonitored social gatherings, alcohol-consumption limitations, and bar closures after midnight (Appendix A). However, the PHM framework proved ineffective as COVID case numbers increased despite the restrictions in place. By the end of September, the second wave was confirmed (Government of Ontario, 2020q; Government of Ontario, 2020r). Throughout October 2020, the provincial government's response became more centralized. On October 2, masks were mandated for indoor spaces by the Premier's Office, rather than the Chief Medical Officer of Health signalling a possible shift in authority with political leadership directing public health measures rather than public health leadership (Government of Ontario, 2020s; CIHI, 2022). Additional social gathering restrictions and certain indoor service closures were announced throughout October and early November culminating in another new provincial framework by the Premier's Office (Government of Ontario, 2020t). The framework, *Keeping Ontario Safe and Open*, garnered criticism from the OHA and health experts who argued the thresholds were not aligned with PHO recommendations and

were too lenient (four times higher than the recommended 25 cases per 100,000 people and a lab test positivity rate of 2.5 per cent), contributing to delays in response (OHA, 2020l; Yang, 2020). On November 13, the Premier's Office announced that case thresholds were being reduced (Government of Ontario, 2020u; OHA, 2020m), resulting in multiple health units entering red and grey lockdown protocols (Government of Ontario, 2020v). These protocols included increasing restrictions in social gatherings (5 people indoors, 25 outdoors), to no social gatherings, bar and restaurant closures (except drive-through), curbside retail only, and closure of personal care settings (Government of Ontario, 2020v). Further scrutiny of the provincial response came on November 25, 2020, from the Office of the Auditor General of Ontario with the release of multiple Special Reports. The reports were highly critical of the government's response (Office of the Auditor General of Ontario, 2020a, 2020b, 2020c, 2020d). The critiques included lack of outbreak planning and preparedness, limited lab capacity, system delays. Critiques related to limited PPE were also reported a year later (Office of the Auditor General of Ontario, 2020a, 2020b, 2020c, 2020d, 2021a, 2021b).

In December of 2020, COVID-19 numbers continued to escalate amid variable lockdowns measures across Public Health Units (Government of Ontario, 2020w) and on December 21, the provincial government announced its intention to implement a provincial-wide lockdown on December 26, 2020, pausing the current framework (Government of Ontario, 2020x, OHA, 2020n). By the end of 2020, the second wave was widespread, with a full provincial lockdown in effect, resulting in the strictest PHMs being instituted. PWUOs' situation worsened as lockdown measures severely limited access to community supports and service agencies. Despite rising death rates among PWUOs by the end of 2020, no mitigating or targeted measures were introduced provincially to address service closures and the barriers PWUOs were experiencing.

4.3 Results: Part B Policy Analysis

The 3I+E framework analyzed the interplay of four factors that may have influenced PHM policy-related decisions enacted in Ontario, Canada. Institutions played a predominant role in policy decisions; however, upon examination, the elements of interests, ideas, and external factors also demonstrated significant influence. Within each of the four categories, the implications of these measures on PWUOs and the SPs who cared for them within NSM were considered.

Institutions: Government structures and the organization of health governance. Institutions encompass the government structures, policy legacies, and networks that shape how particular problems are addressed, with government structures referring to the arrangements and interplay of political parties, affiliated agencies, and their spheres of influence over policy decisions (Lavis et al., 2002 Lavis et al., 2012; Pomey et al., 2010; Gauvin, 2014; Lavis, 2012; Sandhu, 2021).

Canada. As a federalist nation, health care, is a national policy structured across three layers of government with varied accountabilities and based on long-standing legacy policies (Government of Canada, 2021, October 5). Policy decisions and pandemic responses are shaped by government structures and legacy policies with layered accountabilities, such as the Constitution Act of 1867 to 1982 (2026), which outlines the distribution of powers between Parliament and the provinces and territories where health is predominantly situated. The Canada Health Act (1984), another important legacy policy, ensures access to publicly funded health care insurance for Canadian residents (Government of Canada, 2024b).

During an emergency response, such as a pandemic, federal, provincial, and territorial government structures share responsibilities, with each level having their own emergency-management laws and structures within respective jurisdictions (Government of Canada, 2018, June 4). See Figure 4. 2. Provincial and territorial emergency plans form the basis of the national response system and are the responsibility of the provinces and territories. Locally, pandemic plans and emergency responses are in

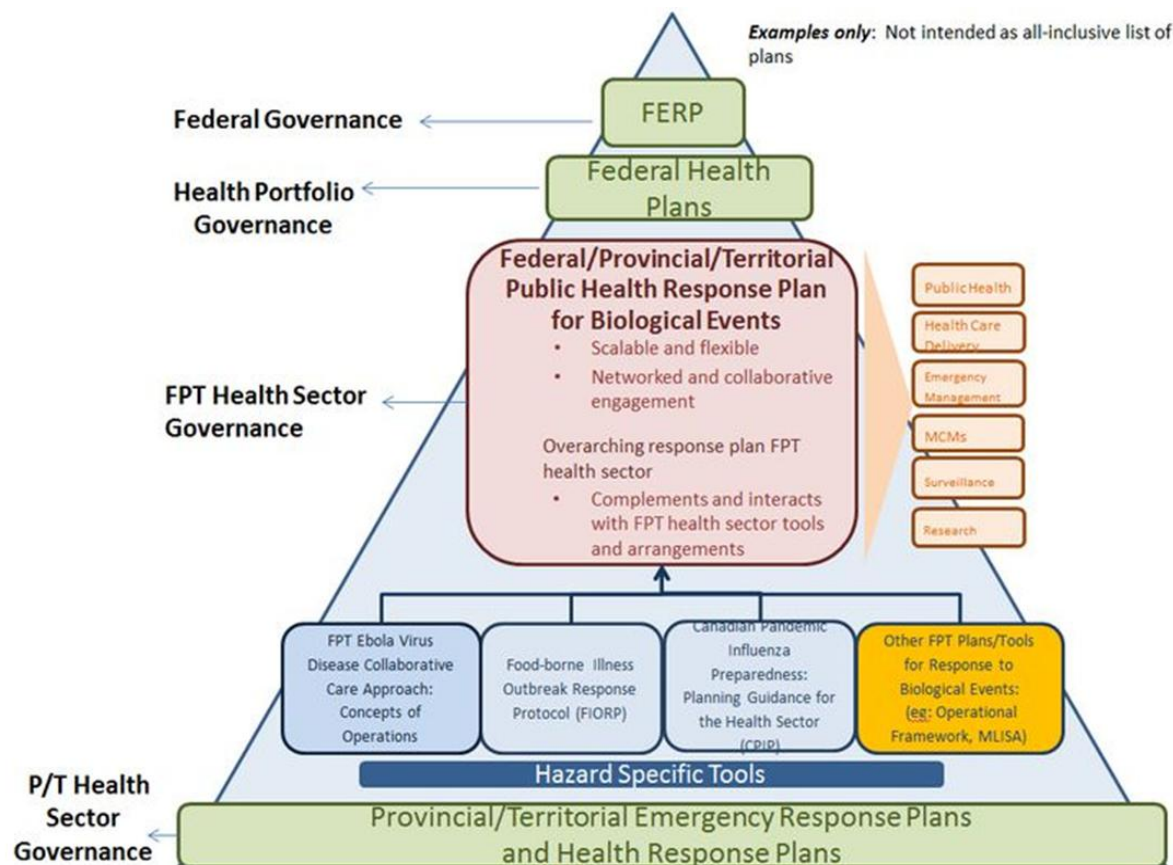
place at hospitals, municipal offices, and public health units. Of note at the onset of the pandemic, Ontario's pandemic plan was from 2013 (Office of the Auditor General, 2020a).

Ontario and municipalities. Based on the Constitution Act of 1867 to 1982 (2026), health care falls within provincial and territorial jurisdiction. This includes social services, hospitals, and through provincial delegation, municipalities with shared funding and accountabilities (Government of Canada, 2021, October 5). The province, through the Ministry of Health, funds 140 hospitals, some with multiple sites (Government of Ontario, 2023). Services associated with community agencies supporting Mental Health and Addictions have mixed funding sources. Federal funds for mental health care originate through federal transfer payments and short-term bilateral agreements with provinces and territories. These bilateral agreements do not obligate the provinces and territories to dedicate the new funding to mental health and addictions (Canadian Mental Health Association [CMHA], 2024). Provincial spending varies, with Ontario funding 5.9%, below the federal average of 6.3% for 2024/2025 (CMHA, 2024). Municipalities also provide funding for programming (e.g., naloxone distribution through public health units), while other services are privately funded (CMHA, 2024).

Consequently, operationalizing and coordinating a national, provincial, and regional pandemic response is challenging due to the multiple layers of government created by Canada's legislative health care framework. High variability exists between provinces and territories, between municipalities, and Ontario's 140 hospital corporations, and 34 PHUs, all with various pandemic plans and interpretations (Government of Ontario, 2023). This creates an environment where cohesive and timely responses remain difficult, demonstrated through provincial variation emergency-declaration timing across Canada (see Appendix K; Government of Canada, 2024c; Urrutia et al., 2021). Further challenges were evident in surveillance and communication of infection and outbreak data from provinces and territories to the PHAC. Variable interpretation and application of directives during the pandemic resulted in inconsistent

Figure 4.2 Relationship between Federal/Provincial/Territory Plans.

governments, affecting access to supplies (McGill et al., 2023; Office of the Auditor General of



Note reprinted from: Government of Canada. (2018, June 4). Relationship between Federal/Provincial/Territory Plans Adapted from <https://www.canada.ca/en/public-health/services/emergency-preparedness/public-health-response-plan-biological-events.html#s2-4>

Ontario, 2021a, 2021b; Urrutia et al., 2020). These variations affected PWUOs and SPs caring for them, resulting in service variability and closures, staff redeployment, lack of clarity regarding COVID-19 spread, and community-agency closures due to limited or no access to PPE, which ultimately created access issues to services (CCSA, 2020a; McGill et al., 2023; Russell et al., 2021; Urrutia et al., 2020)

Federally, the Canadian Emergency Response Benefit (CERB) was a policy decision implemented from April 6 to December 6, 2020. If eligible, the emergency benefit provided \$2000 per month if criteria were met. Unfortunately, this broad benefit may have inadvertently contributed to unintended harm for

PWUOs through the additional income combined with hotelling and isolation requirements. The combined policy actions may have inadvertently resulted in increased opioid use during the initial pandemic period (Hutchinson et al., 2023; Tam, 2020).

Networks Ontario's political context. Leading into the pandemic, the Ontario's majority government possessed a high level of autonomy in policy decisions, with networks providing a predominantly advocacy role. Advocacy groups, such as the Ontario Hospital Association, PHO, and OH Mental Health and Addictions Response Table, maintaining advisory and advocacy roles rather than directly participating in policy decisions (Cashore & Verinsky, 2000). With the declaration of a state of emergency under the Emergency Measures and Civil Protection Act (1990), the Ontario government gained heightened control of policy decisions, further consolidated provincial autonomy, evidenced through provincial decisions on matters typically within the public health domain (Cashore & Verinsky, 2000). Consequently, coexisting legislation, the Health Protection and Promotion Act (1990) and the Emergency Measures and Civil Protection Act (1990), appeared to blur during this timeframe, potentially confusing roles and authority during the pandemic response.

Legacy policies create government structures responsible for organizing health care nationally, provincially, and regionally. Although health is regarded as a national system accessible to all Canadians, it functioned throughout the pandemic as multiple systems operating with provincial, territorial, and local municipal variability. The fragmentation likely affected preparation, response, and mobilization, across jurisdictions. Interpretation and implementation of essential-service directives varied, resulting in service availability and variability and reduced access for PWUOs

Supporting structures for public health and health services. Supportive structures for public health emergencies similarly involve accountabilities across the three levels of government. These structures are the Public Health Agency of Canada (PHAC) and the Chief Public Health Officer (CPHO) at

the federal level; Public Health Ontario (PHO) and the Chief Medical Officer of Health (CMOH) at the Provincial level; and Public Health Units and Local Medical Officers of Health (MOH) at the regional level.

PHAC, created following SARS in 2004, is a federal agency with accountabilities to Health Canada and oversees national disease surveillance as well as federal public health systems that support provinces and territories. For example, PHAC is responsible for maintaining the National Emergency Stockpile System (NESS), which provides emergency/surge supplies, such as PPE, to the provinces and territories when overwhelmed. As the pandemic intensified, PPE became a major issue at all levels of government, with inadequacies in the NESS Stockpile and concerns about supply and product quality becoming evident (Leo, 2020). Canada shipped 16 tons of PPE from NESS in early February 2020, reducing PPE availability for provinces, an action that demonstrated the disconnect between federal-awareness and provincial PPE needs (Office of the Auditor General of Ontario, 2020a). Interim federal guidelines allowed PPE not compatible with pre-COVID standards (LEO, 2020). Notices, guidelines, and technical briefs regarding extended use, reuse, reprocessing of N95s, use of expired PPE came from federal and provincial levels (Government of Canada, 2020a; OHA, 2020d, 2020g Ontario Health, 2020a, 2020b). These issues generated fear and reduced trust and confidence in the PPE being used among service providers and clinicians (Becene et al., 2024; National Safety Council, n.d.). PPE shortages led to closures of services PWUOs relied on due to limited or absent PPE within community agencies (CCSA, 2020a.; Friesen et al., 2021; Hutchinson et al, 2023; Office of the Auditor General of Ontario, 2021a, 2021b).

Reporting to the Minister of Health, the CPHO (Government of Canada, 2026, May 1) is accountable for public health-related provisions, including the Quarantine Act (2005),). Orders under the Quarantine Act (Orders in Council) may have unintentionally affected harm for PWUOs within Ontario. Travel restrictions, required isolation, and border closure likely affecting the flow of drugs, drug supply predictability, increased adulteration, availability, and cost, contributing to riskier use such as using alone, resulting in increased opioid poisoning and deaths (Friesen et al., 2021; Hutchinson et al, 2023).

PHO, established post SARS (2007), is predominantly an advisor to the Ontario Ministry of Health, and local Public Health Units (PHUs), providing best practices, technical advice, and scientific advice, surveillance, and assessments. In 2008, Ontario's Public Health labs (PHLs) transferred from the Ministry of Health and Long Term Care to PHO and are responsible for testing and analysis of suspected reportable infectious and communicable diseases, and the identification of environmental health hazards (Ontario Public Health Association [OPHA], 2009). The PHLs transferred to PHO with known capacity issues, such as staffing issues, the inability to meet surge demand (including contact tracing and follow up on results), and reliance on paper-based systems not integrated with the Ontario Laboratory Information System (Campbell, 2004; Office of the Auditor General of Ontario, 2020b). Concerns about PHL capacity were raised in the months preceding the pandemic, but decisions to increase PHL testing capacity were delayed until the end of March 2020, resulting in undiagnosed individuals and spread (OHA, 2020a; OHA, 2020i; Office of the Auditor General of Ontario, 2020b). The Ministry of Health of Ontario set an initial target of 50,000 tests per day by July, which was deferred to September 2020 due to ongoing capacity issues (Office of the Auditor General of Ontario, 2020b).

Implications. The lab capacity issues combined with newly announced testing strategies, including asymptomatic testing and expansion to assessment centres, by the Premier of Ontario and the Deputy Minister of Health of Ontario, further strained lab capacity (Government of Ontario, 2020m). Health human resource pressures within PHO and PHUs increased as more staff were needed for surge demand from the pandemic and testing requirements (Office of the Auditor General of Ontario, 2020b). Redeployment of staff to health care settings, such as assessment centres, including both PHU staff and hospital staff, disrupting PHU services, including substance-use support, harm reduction services, and naloxone distribution (Hutchinson et al, 2023; Russell et al., 2021; Waypoint Centre for Mental Health Care, 2020d). Legacy PHO laboratory issues delayed lab testing/results, and case management (Office of Auditor General of Ontario, 2020b). These delays may have contributed to COVID-19 spread, barriers to

access, prolonged isolation, and treatment delays. PWUOs seeking treatment, experienced barriers because testing was a requirement for admission to some residential and treatment programs, yet test results were significantly delayed (OH MH&ART, 2020c, Oct 8). When admitted, PWUOs experienced prolonged isolation while awaiting test results (up to 5.75 days in the Toronto area) during which time they experienced treatment delays coupled with withdrawal symptoms (Office of Auditor General of Ontario, 2020b).

Reporting to the Deputy Minister of Health, the CMOH is responsible for determining provincial public health needs and ensuring appropriate actions are taken for urgent and emergency situations (PHO, 2020, PHO, 2025; June 16; Office of the Auditor General of Ontario, 2020a, 2020c). Under the HPPA (1990), the CMOH has the authority to issue Directives (*Sections 77.7.1*) requiring health care agencies and providers to implement required actions in response to immediate public health risks (Office of Auditor General of Ontario, 2020a; PHO, 2020, June 16). The Minister of Health can also institute the same Directives under the same authority. The CMOH has additional unique powers under the HPPA (1990) Section 77.9(1) to direct local authorities, such as Boards of Health and local Medical Officers of Health (MOH), to adopt required actions and/or measures. Local MOH under the HPPA (1990) Section 22 (1) can also issue orders requiring individuals to take or refrain from certain actions when a communicable disease exists (HPPA, 1990). Commencing March 12, 2020, the CMOH issued the first of five Directives. Directive 1 under the HPPA 77.7.1 instructed health care providers and health care entities to use droplet and contact precautions for regular and suspect COVID-19 (OHA, 2020b). Notably, although evidence was still evolving, airborne precautions were recommended only when performing aerosol generating medical procedures (AGMPs) (Ontario Health, 2020a, 2020b). This was contrary to the SARS Commission recommendations, which advocated for the highest level of protection while science was evolving within the SARS Commission Report (Archives of Ontario, 2026). The implications of this contradiction were

significant, depleted PPE supplies may have compromised the precautionary principle, with surgical masks recommended instead of N95 masks increasing clinician risk.

The CMOH can issue directives to Boards of Health and local MOH under the authority of the HPPA (1990), ensuring consistent responses by local PHUs (Office of the Auditor General of Ontario, 2020a, 2020c). However, this authority was not enacted throughout COVID-19 (Office of the Auditor General of Ontario, 2020c). Consequently, 34 PHUs responded variably to the required PHMs based on local MOH interpretation, priorities and values, affecting service availability, and access to services for PWUOs.

Public health measures were communicated through varied means, including directives, orders, announcements, recommendations, requisitions, technical briefs and guidelines from the Premier's office, the Ministry of Health and/or the CMOH (Appendix A). Directives from the CMOH administered under HPPA (1990) were repeatedly revised (Directive 3,4, and 5), or ended/suspended (Directive 1 and 2), leaving interpretation and application by local hospitals and PHUs. Directive 2, which required the ramp-down of non-essential services, demonstrated this variability as PHUs and hospitals interpreted and implemented this directive differently, creating conditions for value-based decisions regarding what was essential versus non-essential services. (College of Traditional Chinese Medicine, 2020, March 19). Minutes from several sources conveyed ongoing issues, particularly with treatment and rehab beds being closed, closures due to PPE shortages, testing issues, and critical staffing shortages (OHMH&AR, 2020a, 2020b, 2020c; Waypoint Centre for Mental Health Care, 2020d).

Emergency orders, initially administered under the EMCPA (1990), changed to a new authority, the Reopening Ontario Act (2020). Under this Act, every 30 days, the Select Committee comprised of politicians, non-Public Health experts, reviewed and renewed orders, highlighting potential political influence and absence of expert knowledge. The rapid pace of these directives, the variable sources of

authority, and the multiple forms of communication created a sense of confusion, reaction, and system overwhelm. Efforts to stay current with changing PHMs created the potential for misinterpretation, service variability, role confusion regarding authority, as well as possible delays in application.

Each PHU is led by an MOH, accountable to a local Board of Health, has authority under Section 22 (1 and 2) of the HPPA (1990) to issue local orders. The MOHs can order any person to act or refrain from certain activities, to enforce quarantine, close businesses at the local level, and execute and enforce the measures of the Provincial CMOH (Office of the Auditor General of Ontario, 2020a). As structured, the Provincial CMOH and the local MOHs could ensure coordinated provincial and regional level response through HPPA authority. The MOHs sought more coordination from the CMOH in May 2020, seeking more consistency; however, this did not happen (Office of the Auditor General of Ontario, 2020c). Consequently, PHUs responded variably with respect to services and PHMs, which contributed to confusion among the public and service providers who move beyond local PHU boundaries. Also, this variability affected PWUOs' understanding of where they could access services as they moved between communities.

Influences of Interest Groups: Interests encompass the agendas of public and private actors, including elected officials, bureaucratic and scholarly groups, and the power dynamics between government and stakeholders that determine whose voices shape policy decisions (Pomey et al., 2010; Sandhu, 2021)

PWUOs and service providers. Clearly, at the start of the pandemic, efforts focused on containing COVID-19 among the general population, or the “greater good” until further measures, such as vaccines, became available (Gaynor & Wilson, 2020). The following demonstrated a regional response to support the “greater good” concept, which unfortunately likely increased vulnerability for PWUOs. On March 23, 2020, the closure of 18 voluntary concurrent disorder beds (substance use and mental health) occurred at a large regional mental Health hospital located in North Simcoe Muskoka to support the opening and

staffing a COVID-19 isolation unit for new admissions, internal patients, or transfers from other hospitals (Waypoint Centre for Mental Health Care, 2020d). PWUOs were not represented in the decisions for the “greater good,” nor were mitigating measures implemented from provincial level mandates. PWUOs were in a declared public health crisis leading into the pandemic, experiencing opioid toxicity deaths in NSM above provincial averages (Brens et al., 2018; Substance Related Overdose and Mortality Surveillance Task Group, 2026; Gomes et al., 2023a; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022; PHO, 2023) and continued experiencing dramatic increases in drug toxicity deaths (PHO, n.d.). In August 2020, the Federal Minister of Health sent a letter to provinces and territorial Ministers of Health and regulatory colleges encouraging action and care options for PWUOs from practitioners, including prescribing safer supply (Government of Canada, 2020c). The provinces and territories were to decide how best to address this request. Although this communication indicated awareness of the escalating harms, mandated actions through directives to support access and treatment were not instituted. The PWUOs were not a highly visible group, and their interests were not represented through advocacy or media.

Staff working within the addictions field generally provided services through hospitals, community clinics or private services and shelters. As the pandemic unfolded, many services shifted to virtual services in efforts to maintain support and reduce in-person contacts; some services adopted more flexible approaches such as the use of multiple carries-take home antagonist therapy medications (Kolla et al., 2024; Monaghesh & Hajizadeh, 2020). There were also concerns among the addictions workforce that their voices didn’t make it to decision-making tables. Staff with union representation and professional associations representation (e.g., Ontario Nurses Association, Registered Nurses Association of Ontario) were able to raise concerns publicly through advocacy and media. Health care workers in community-based addiction settings are often not affiliated with such organizations and do not receive the same level of visibility as those in the hospital sector and their respective unions (OHMH&AR, 2020a, 2020b).

During outbreak situations, health care workers considered “front line”, such as nurses, doctors, and first responders, were placed in situations of risk to care for sick, infected patients with required training, education and protective measures. This had consequences: as health care workers experienced increased distress, worsening mental health associated with their workload, self-care and personal safety, as well as fear for their families’ safety (Becene et al., 2024; Brophy et al., 2021; Lai et al., 2020; Voth et al., 2022). Health care staff, including addiction staff, expressed concerns related to PPE supply and quality, limited IPAC support and knowledge, and high-risk work environments (Leo, 2020; McKeen, 2020, Feb. 28; Office of the Auditor General of Ontario, 2021a, 2021b). These themes echoed from the SARS commission (Campbell, 2004). Issues regarding N95 use and the precautionary principle re-emerged, demonstrating persistent gaps in learnings from SARS and may reflect ideas regarding what is valued in pandemic preparedness, response and health care worker safety.

Unions. Some Unions were highly visible and vocal during COVID-19, particularly the Ontario Nurses’ Association (ONA). Bill 124, which received assent just preceding the pandemic, created union unrest and resultant media attention (Benzie, 2019; Bullock et al., 2022). Although not directly involved in policy participation, strong advocacy and sway were evident in one directive in particular – Directive 5. The Ontario Nurses’ Association (ONA) interests were clearly represented in the initial Directive 5 (Mar 30, 2020, revised March 31, 2020) which applied to ONA nurses regarding the use of precautions and PPE (Government of Ontario, 2020j; My RNAO, 2020, OHA, 2020i). Other professionals involved in caring for COVID-19 patients, not represented by ONA (physicians, Registered Respiratory Therapists, Registered Practical Nurses) were not included in the original directive or the revised version released on March, 31, 2020. As indicated in the letter from Smokey Thomas, Ontario Public Service Employee Union President to Dr Williams, Ontario’s CMOH seeking clarification “The amended Directive add the words “as applicable to nurses represented by the Ontario Nurses Association... It is not clear if the protections detailed in Directive #5 apply to all health care workers, or to workers represented by ONA. There is also confusion

created with respect to the role of ONA going forward” (Ontario Public Service Employee Union, 2020, April 1). There was confusion as to whether the Directive applied to given professionals and how their safety needs were to be met. Consequently, this Directive may have contributed to mistrust as to the evidence and influences driving policy decisions. Directive 5 was subsequently revised a week later (OHA, 2020j). The CMOH did not appear to be acting independently from the sway of the Ontario Nurses Association (ONA), as the directive released by the CMOH, was in partnership with ONA, and was not congruent with best practices or the needs of other clinicians exposed to COVID-19.

The Ontario Hospitals Association. The OHA provides strong, and highly visible representation of hospital interests. The OHA uses multiple approaches to advocate for the hospital sector, including regular hospital updates and responses (almost daily during initial months of the pandemic), evolving research and resources, and the use of media. Although not a participant in policy decisions, OHA’s influence on policy development, or reform was evident during the initial ten-month period of the pandemic. For example, after the release of the new provincial government framework, Keeping Ontario Safe and Open Framework (November 3, 2020), the OHA issued a brief response to its members that the document was under review (OHA, 2020l). On November 13, the OHA released a lengthy letter outlining concerns regarding the epidemiology of the framework, with the thresholds being set too high (OHA, 2020m). The province responded on November 13, 2020, with modifications of the thresholds (Ontario Health, 2020d).

The OHA represents a powerful advocacy body that utilized many resources, ensuring their interests were well represented and highly visible. However, the highly visible advocacy provided by the OHA was not always effective in changing policy decisions, as demonstrated by calls for stricter measures during the fall that were not acted on. As a highly visible advocacy body for the sector, the OHA represents hospitals; the OHA did not provide advocacy for PWUOs or SPs within the addictions sector during this period. This may result from many of these services being community-based; however, addiction services are also available within the hospital sector raising questions about why these groups remained invisible.

Ontario Health Mental Health & Addictions COVID Response Table. Established in March 2020, this table provided an advisory role to Ontario Health. The representation was broad, comprised of community and hospital sector representation and participation, and public servants from Ontario Health (OH). The table provided advocacy and communication regarding the impacts of COVID-19 on the Mental Health and Addiction sector. Issues of misaligned practices were raised with OH, as emergency measures being implemented in hospitals were not being communicated or shared with community agencies (OH MH&ART, 2020a). Although a strong senior level presence—including the Associate Minister of Mental Health and Addictions, and other public servants, the table was not a decision-making body but was active in advocating and communicating concerns regarding data gaps, opioid use and mortality, service closures, reduced access, limited PPE and IPAC measures causing closures directly to OH. Through this table, the minutes documented that the interests and concerns from this sector were raised directly with OH and the Associate Minister of Mental Health and Addictions, thereby eliminating arguments regarding a lack of awareness. (OH MH&ART, 2020a, 2020b). Public Servants participating, may have shared in the concerns being raised by various sectors and participants. However, their roles were advisory as decisions were made following meetings demonstrating the advisory nature of this table. This table and those participating appeared to advocate rather than, participate in actual policy decisions which were occurring in a more centralized manner at the provincial level. Public servants participating in the OH MH&A RT meetings may have contributed to and advocated for supports arising from the concerns being raised during the OH MH&A RT meetings. However, this was unclear.

Influencing ideas. Are those beliefs about what is known, or views about what ought to be known, or combinations of both, and the shaping of policy decisions through the predominant political party's position and underlying beliefs (Gauvin, 2014; Lavis et al., 2002; Pomey et al., 2010).

Scientific knowledge and research. At the start of the pandemic, research regarding the COVID-19 virus was limited. Effective vaccines and anti-viral treatments specific to COVID-19 weren't in the imminent future. As a result, broad sweeping PMHs were regarded as the best approach within the science community to contain viral spread (Mitra et al., 2024 and Zolopa et al., 2021). Over time, however, these measures became less popular publicly and politically, since the approach was perceived to infringe on the values of individual rights, freedoms to liberty, and increasing economic and social hardships created by the restrictions (Bullock et al., 2022; Sebhatu et al., 2020).

At the onset of the pandemic, it was known or should have been recognized that PWUOs were simultaneously in an opioid crisis, aggravated by rising drug toxicity (Comeau et al., 2023; Ontario Drug Research & Policy Network & Public Health Ontario, 2023; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022). More rural environments, including NSM, were challenged by limited resources (Brens et al., 2020; Eisener et al., 2022) Thompson et al (2023) found that individuals who died from opioid toxicity between 2017 and 2018 experienced one or more of the following risks: presence of diagnosed or undiagnosed mental illness; history of trauma; substance use; chronic pain; decreased tolerance to medication; history of stigma; and lack of medical support or follow-up. PWUOs often experience longer-term chronic illnesses such as respiratory disease (asthma, COPD), HIV and Hepatitis (Ali et al., 2021; Hutchinson et al., 2023; Wang et al., 2021). These comorbidities, combined with stigma, marginalization, and limited access to resources, created a population that was quite vulnerable leading into the pandemic, and further disproportionately impacted by COVID-19 (Hutchinson et al., 2023; Tam, 2020; Wang et al., 2021). The effects of large-scale public health events were known to intensify inequities and disruptions from universal PHMs (Mitra et al., 2024; Tam, 2020; Zolopa et al., 2021). Thus, factors were known, or ought to have been known, which identified this group as having underlying vulnerabilities, placing them at higher risk of harm from COVID-19 and required additional attention and support as a result.

Values. When reviewing policy decisions such as the repeated implementation of broad PHMs introduced during the two waves of the pandemic without mitigation, questions arise regarding values underpinning these decisions. Canada’s publicly funded health care system is founded on the principle of universal access, and considered a historic source of pride (Romanow, 2002). The broad sweeping measures instituted in Ontario resulted in repetitive service reductions, closures, reduced access, delays in surgeries—outcomes that contradict this “Canadian” value. This was especially true for PWUOs, who experienced bed closures, service closures, and reductions in rehab and treatment beds, despite already reduced supports in the NSM region (Brens et al., 2018; Klein & Begen, 2024; Mitra et al., 2024; Murray, 2021; Russell et al, 2021; Sebhatu et al, 2020; Tam, 2020; Urrutia et al., 2020). The value of universal access was not always available to select groups during this period of great need.

Leading into the pandemic, the provincial government was transforming health care in Ontario, indicating a belief that health in Ontario needed to be “fixed and strengthened” (Government of Ontario, 2019a). Major legislative changes reflected values of fiscal restraint within the public sector, which included nurses and other health care workers (Johnston, 2019). Reductions in provincial mental health funding before the pandemic may have been indicative of the government’s values towards mental health and addictions. The recurring PHMs experienced during the first 2 waves of the pandemic without mitigating strategies for PWUOs, despite rising death rates, demonstrated that the focus and the values were not on PWUOs, suggesting the possibility of social and structural stigma (Government of Canada, 2024a; Hatzenbuehler et al, 2014; McCradden et al., 2019). The repetitive nature of the policies without mitigation, despite rising levels of harm, suggests the presence of values, and the imposition of moral judgement and stratification of this population as less valued, reinforced through these policies (McCradden et al., 2019). The government’s values and thus attention may have been focused on the more visible, less stigmatized groups and associated risk to the government’s popularity.

Ontario's pandemic plan was outdated by seven years at the onset of the pandemic, demonstrating a lack of value placed on preparedness across several provincial leadership parties (Office of the Auditor General of Ontario, 2020a). Also, as cited in the Office of the Auditor General reports (2020a, 2020c), recommendations from previous reports, such as SARS Commission reports, remained incomplete or partially completed (Office of the Auditor General of Ontario, 2020a, 2020c). The lack of PPE availability at the start and throughout much of the first ten months of the pandemic created management protocols that disallowed the precautionary principle (The Office of the Auditor General of Ontario, 2020a). Ontario Health's PPE Guidelines (2020a, 2020b), required extended mask use for multiple days (unless soiled or wet) in clinical areas or where social distancing could not be maintained. Masks were gathered when discarded and stored awaiting further directions from federal/provincial government regarding reprocessing (Ontario Health, 2020a, pp. 9-11). This was shocking for health care in Ontario: staff wearing masks past expiry dates, hand-sewn masks and gowns, extended use and reuse, and reprocessing of PPE being planned. Staff confidence in changing PPE guidance was waning. Staff were assigned roles outside their expertise, faced unfamiliar care processes, and worked with insufficient and changing staffing models. Overall, staff were fearful for their safety, mistrusting evolving guidance, which was contrary to previously established guidelines, raising concerns of personal safety, safety of family members, and feeling undervalued (Becene et al., 2024; Brophy et al., 2021; Lai, 2020; Simon et al., 2021; Voth et al., 2022). Questions remain regarding the desire to review, learn, and prepare for future pandemics, as discussion of COVID became less popular and visible. Recommendations stemming from prior reviews and those found through the Office of the Auditor General remain unmet at the time of this study.

Balancing and shifts in valuing the economy versus public health appeared in several policy decisions. In August of 2020, a restructuring occurred whereby the CMOH was no longer the lead of the pandemic response, a decision which may reflect an undervaluing, or disempowerment of public health

expertise and the role of the CMOH in the pandemic response. The Government's decision to not follow their public health expert recommendations in the November 2020 framework, and the decision to delay provincial-level lockdowns until after Christmas, possibly demonstrated the provincial government's values shifting from public health safety regardless of the escalating second wave numbers.

Legacy capacity issues include hospital beds, ICU beds, high occupancy, emergency volumes, and lab capacity issues, were unresolved at the start of the pandemic and predated the current provincial government (Financial Accountability Office of Ontario, 2020; April 2020; Health Quality Ontario, 2018; Devlin, 2019; Urrutia et al., 2021). Rapid redeployment of staff from hospitals to the new beds, transient structures, and new assessment centres, plus LTCH support, created increased health-human resource demands. These unresolved legacy capacity issues impact health sector's ability to prepare and respond to a global pandemic and demonstrate values that are comfortable with the inertia in these long-standing areas.

The presence and influence of values and beliefs on policy decisions was evident during the period leading into the pandemic, and during the pandemic. Societal values likely contributed to policy decisions, as waning public support for PHMs increased, the pressure on the provincial government likely also increased, potentially contributing to delaying decisions related to stricter PHMs. The provincial government's lack of mitigating strategies to support PWUOs conveys values that placed PWUOs lower than other vulnerable populations.

External factors. Are those factors that generate urgency and influence of on political decisions.

External Reports. Several external reports provide important context for PHM policy decisions and Ontario's COVID-19 response. Chief among them was the SARS Commission, led by Justice Archie Campbell, which investigated Ontario's response to the 2003-2004 SARS outbreak (Archives of Ontario, 2026). Released publicly in 2007, the Commission documented significant system-level failures, including

the limited capacity of public health—particularly the PHUs insufficient preparedness, and chronic underfunding (Archives of Ontario, 2026). SARS resulted in 44 deaths, 351 cases in Ontario and 744 deaths globally, with the Greater Toronto Area in Ontario identified as the epicentre for SARS in Canada. (Archives of Ontario, 2026).

Central to the Commission’s findings was the call for sustained funding and investment in public health and adherence to the precautionary principle to guide decisions-making in the face of uncertainty (Archives of Ontario, 2026). Extensive recommendations were outlined in the interim and final reports, some of which remain partially implemented. The recommendations included reforming the Health Protection and Promotion Act (1990) to remove dangerous uncertainties about infectious disease reporting obligations and provide authorities with the ability to provide a more tightly focused response. The report included improving the Mandatory Health Programs and Services Guidelines by shifting from guidelines to performance-based program standards, establishing the Ontario Health Protection and Promotion Agency, revitalizing the Central Public Health Laboratory, and providing sufficient and sustained funding for public health. Despite these recommendations, media commentary during COVID-19 highlighted that deficiencies identified during SARS, particularly related to PPE supplies, and the application of the precautionary principle—issues persisting in the current pandemic (Tsekouras, 2022). The Office of the Auditor General of Ontario (2020a, 2020b, 2020c, 2020d, 2021a, 2021b) reinforced these concerns through a series of special reports released during November of 2020. The reports were highly critical of Ontario’s emergency-response structures, outbreak planning, and decision-making processes, laboratory testing and contact tracing capacity, pandemic readiness, PPE supplies and oversight, and overall COVID-19 expenditures (Office of the Auditor General of Ontario, 2020a, 2020b, 2020c, 2020d, 2021a, 2021b).

The timing of the release of the reports coincided with revisions to the provincial government’s reopening Ontario framework, drawing further public attention to the government’s handling of the

pandemic response and ongoing unresolved issues from previous lessons learned, which spanned multiple governments. The release of these unfavourable reports may have affected public confidence and trust in the provincial government's leadership during the pandemic.

In contrast to these critical reports, the Ontario government released an encouraging report just before the pandemic that outlined improvements to the mental health system. *The Roadmap to Wellness: A Plan to Build Ontario's Mental Health & Addictions System* (Government of Ontario, 2020c) outlined a 4-pillar strategy to modernize mental health and addiction services, led and implemented by the newly formed MH&A Centre of Excellence. While Pillar three recognized gaps in services, including addictions and the opioid crisis, the expansion of addiction services was not included in the 2020 plan milestones (Government of Ontario, 2020c). This omission may have indicated a gap between policy strategy and prioritization of actions within the plan. Theoretically, this plan could have informed the PHMs, identifying areas to help mitigate the collateral impacts on people experiencing mental health and addiction issues, such as PWUOs; however, it remains unclear whether this report was accessed to inform pandemic decision-making.

Virtual care. On March 16, 2020, Ontario's Ministry of Health urged employees to work virtually from home, in close succession to the closures of non-essential services and businesses (Tam, 2020). These PHMs created rapid shifts in health care service delivery and access, with the introduction and expansion of virtual platforms (e.g., Telehealth), providing services previously required to be in person (Monaghesh & Hajizadeh, 2020). Telehealth was promoted as the solution to protecting patients and staff from COVID-19 transmissions while maintaining patient-centric care (Monaghesh & Hajizadeh, 2020). However, the rapid adoption of virtual care did not benefit everyone equally. Essential service policies required some staff to be at work, providing services and care for patients during the pandemic response; working from home was not an option. For services that closed, which included addiction beds in NSM, staff were redeployed to other services. As some services reopened, rapid development of guidelines and staff

training were required, which may have led to some further delays in service access (OH MH&ART, 2020a). The rapid shift to virtual care was advantageous for the more affluent, well-educated class, sometimes identified as the “laptop” class (Klein & Begen, 2024). Conversely, virtual care exacerbated inequities for some people, particularly those struggling with lower incomes, social vulnerabilities, and limited access to digital services. For PWUOs, telehealth may have created additional inequity and disparity due to the lack of access to phones or Wi-Fi (OH MH&ART, 2020a). In addition, digital literacy (e.g., Zoom/Teams) or their level of wellness if currently using or withdrawing from drugs may have affected their ability to engage virtually. The use of virtual care as the solution demonstrated a social blindness or structural stigma embedded in policy decisions, further disadvantaging and excluding certain populations such as PWUOs (Mental Health Commission of Canada, 2025).

Social Media. Social media played a significant role in communicating information about COVID-19 risks and transmission, protective measures, and the PHMs being imposed. Social media, however, also served as a vehicle for rapidly spreading misinformation (Murphy et al., 2022; Tam, 2020). At the start of the pandemic, scientific information was limited; the speed of changing information regarding transmissibility, data, and projections, created confusion and the need to seek additional information, not always from reputable sites (Magarini et al., 2021; Tam, 2020). The pandemic created an “infodemic”, an overabundance of information, including false or misleading information during a disease outbreak (Magarini et al., 2021). Social media provided the platform to spread mistrust of government and agencies promoting PHMs, resistance to compliance with PHMs, and promoting fake cures (Marinthe et al., 2020; Murphy et al., 2022). Certain populations were targeted, with blame and responsibility for the virus, causing fear and anger to be directed towards them (Magarini et al., 2021). Consequently, perspectives regarding the pandemic varied extensively. Communications and data rapidly changed in the initial months of the pandemic as information evolved, which heightened suspicion. Consequently, public trust

of the government and health authorities may have eroded, potentially delaying adoption of the measures and ongoing spread of the virus.

New disease. COVID-19 was a new global disease, which revealed areas of vulnerability within the health care system and inequities which the PHM intensified. Vulnerabilities included national and provincial preparedness and coordination. Local disparity and variability in services, and interpretation of essential and non-essential services, worsened service disparities, particularly for vulnerable populations such as PWUOs. However, there were also areas of global strength and response. Scientists, manufacturers, and political leaders united rapidly with the purpose of developing and distributing vaccines, antivirals, PPE, and evolving best evidence in efforts to mitigate and end the pandemic.

4.4 Discussion

The 3I+E framework analyzed four areas of influence about the PHMs implemented in Ontario during the first ten months of the pandemic. In reviewing and synthesizing the analysis, four themes were developed: System Coordination; transparency and accountability; targeted measures; and increased vulnerability and stigma.

System coordination. Managing a coordinated pandemic response is a massive undertaking for global governments including Canada. Canada's health care system is organized across federal, provincial and municipal levels, a structure that supports autonomy in health care delivery but complicates coordination during an emergency response (Government of Canada, n.d.). Legacy policies, particularly the Constitution Act 1867 to 1982 (2026), encourage provincial and local variation in health care delivery; COVID-19 tested these decentralized systems to function quickly and cohesively. The Federal/Provincial/Territory Emergency Management framework is intended to support an integrated structure for national emergencies, including pandemics, with provincial, municipal and local agencies having plans in place forming the foundation of the framework (Government of Canada, 2017, October

31). However, this also contributes to unique and varied responses which did occur across these levels. Services for PWUOs were not considered essential, resulting in closed or significantly reduced beds and services in a region already struggling with resources (Brens et al., 2018; OH MH&ART, 2020a). Concurrently, rapid efforts to expand hospital capacity, mobilize interim structures and assessment centres required staff redeployment from the non-essential services such as addiction services to support the added capacity, further disrupting services for PWUOs. (Crawley, 2020).

Previous public health emergencies such as the SARS outbreak provide extensive lessons to strengthen pandemic preparedness and response. Reports from Justice Campbell's SARS Commission (Archives of Ontario, 2026), the Naylor Report (Government of Canada, 2003), audits by the Auditor General of Ontario (Office of the Auditor General, 2020a; 2020b; 2020c; 2020d; 2021a; 2021b), and media outline persistent system failures regarding preparedness for future pandemics, PPE concerns, staff safety, and variable responses (Tsekouras, 2022). Despite these warnings, some recommendations remain unimplemented leading into COVID-19—almost two decades later.

The following offers insights as to why previously identified deficiencies persisted. Government structures, established by policy legacies are difficult to change, with political and financial costs of reversal being too high (Levi, 1997). Levi's (1997) argues that once structures and institutions become entrenched, rapid change becomes obstructed. This perspective helps explain the province's ongoing fixation with health transformation during COVID-19, while simultaneously responding to the pandemic. The government may have been too invested to change course, resulting in the creation of new structures to support the pandemic response (See Appendix J). Torfing (2023) suggested stable paths are difficult to change due to cost and the risks of uncertainty. However, when a major crisis presents, such as COVID-19, an opportunity presents where change can occur and provide the impetus for incremental reforms to legacy policies (Torfing, 2023). This may be relevant for legacy policies, such as the constitutional distribution of powers, to institute minor changes to enhance system coordination.

The analysis of institutional structures and associated legacy policies illuminates how policy structures contribute to coordination issues. Issues of variability in pandemic responses, inconsistencies in what services are considered non-essential affecting resource and service availability, which allow value-based decisions. System coordination challenges are evident between Ontario's Chief Medical Officer of Health (CMOH) and the local Medical Officers of Health (MOH). Post SARS, the HPPA grants authority to the CMOH to direct Boards of Health and local MOHs to adopt or implement required measures to ensure consistency across PHUs in Ontario. However, this did not occur, resulting in different interpretations and applications of directives and resultant service variability and timeliness. These coordination gaps have significant consequences, especially for PWUOs who experience disproportionate harm resulting in escalating mortality and morbidity rates (Gomes et al., 2021a, Gomes et al., 2021b; Friesen et al., 2021).

Recognizing the possible relationship between government structures and the resultant unanticipated consequences for PWUOs and staff is a significant finding of this analysis. Policy decisions implemented across all levels of government demonstrate limited awareness of the cumulating harmful effects of PMHs, particularly on certain vulnerable populations such as PWUOs. Strengthening coordination through legislative changes to enhance clarity and accountability across the levels of government before the next pandemic is an opportunity to be seized. With additional clarity, variability, values, and interests can be mitigated.

Coordinated approaches need to span all political parties, embracing an "apolitical" approach. Policy considerations include declaring a National Public Health Emergency requiring immediate mobilization of all provinces and territories; legislation supporting federal/provincial/territory consistency in declaring a public health emergency; and current and integrated federal/provincial/territory pandemic plans. Specifically addressing a fully functional integrated data system, PPE supplies including minimal levels, storage, and management (all levels), surge plans for public health and hospitals inclusive of health

human resource plans outlined. Accountability can be strengthened through transfer payment requirements, including the annual submission of pandemic plans. Tabletop exercises to simulate large-scale response across the federal/provincial/territories to ensure coordination and operational readiness. Clear expectations regarding vulnerable populations, with supporting data, definitions and research, with required essential services outlined. While this may seem micro-level or an infringement on provincial/territory/municipal governance; however, previous events demonstrate a propensity to disproportionately affect vulnerable groups when the greater good is prioritized. Planning and clarity as to how these groups will be supported with defined resources are required.

Transparency and accountability. While significant resources are exerted to learn from large-scale events, such as SARS, to avoid repeating similar errors and bolster resources, several issues did repeat. During the analysis, examples of incomplete implementation of recommendations from SARS are identified, demonstrating ongoing accountability concerns, such as:

- changes to provincial public health emergencies no longer under the CMOH and outdated pandemic plan (May 2013);
- CMOH not executing full authority with local MOH and Boards of health (variable approaches across 34 PHU);
- lack of public transparency regarding ministerial recommendations, and ongoing public health laboratory resource issues. (Office of the Auditor General of Ontario, 2020b).

Accountability to ensure completion of the recommendations diminishes with the passage of time and changes in political leadership. Although public servants may remain within various structures, shifts in political parties and priorities affect where their energies and areas of focus are directed. There are consequences of failing to learn and adopt improvements, some which are visible and continue to haunt today. Dedicated attention and transparent communication are needed to assure the public that

recommendations from previous events-and from the COVID-19 response-are fully completed, placing the province in a stronger state of preparedness for future emergencies. As noted, Ontario's pandemic plan must remain current and reflective of lessons learned from the current and previous events. Identified core areas from the federal plan need to be incorporated to ensure coordination across levels of government. At the municipal level, service agreement plans should require annual submissions of pandemic plans to ensure hospitals, municipalities and other local health services maintain plans that align with federal and provincial core areas. Clarity regarding vulnerable populations and essential services helps reduce the introduction of variable interpretations, values, and stigma. Clear identification and definition of roles are required to ensure accountability for alignment and currency of the plans.

Consideration of the Auditor General of Ontario's recommendation that strengthen accountability and authority for provincial and local pandemic response requires resources and realignment of the pandemic response structure back to the CMOH, where PH expertise resides (Office of the Auditor General of Ontario, 2020a). Included in this consideration, the roles of PHO and OH during a pandemic response would need clarification. PHO was established post-SARS to provide PH expertise, technical guidance, and eventually the operation of the PHLs. Long-standing concerns regarding laboratory resources and capacity remain unresolved as indicated in the SARS Commission Report (Archives of Ontario, 2026) and the Office of the Auditor General of Ontario(2020b). PHO should function as an "apolitical" structure, with public servants focusing on best evidence to guide decisions and ensure PH expertise and alignment with PHAC. However, funding from political governing bodies is required to support improvements for PHL and potentially areas of focus are influences by political elected bodies. Strengthening and aligning PH leadership presence and support for the CMOH during pandemic responses, may increase trust in decisions, help to mitigate political influence, and ensures PH expertise is central during a pandemic.

Targeted measures. During the first 6 months of the pandemic, opioid-related mortality increased dramatically from 23 to 54 deaths, with individuals younger than 35 years experiencing the most severe mortality, a 320% increase (Gomes et al, 2021a). The rapidly deployed PHMs implemented to contain the spread of COVID-19 disproportionately affected PWUOs, who were in a pre-existing public health crisis and struggling with access to services in more rural, underserved areas such as NSM (Brens et al., 2018; Thomas et al, 2020). Increased adulteration, disruptions to addiction services, reduced community supports, and restrictions on mobility contribute to riskier use and behaviours such as using alone, thereby increasing their risk of overdose mortality (CCSA, 2020b; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022; Russell et al, 2021). A study by Wang (2020) demonstrates people with opioid use disorder (OUD) are at the greatest risk from COVID-19 (increased further if African American) yet were not provided with essential services. Directive #3, issued by the CMOH under section 77.7 of the HPPA, targeted LTCHs, providing staffing requirements, restrictions, cohorting, and other IPAC considerations for the residents and staff of LTCHs (Ottawa Public Health, 2020). This Directive, is repeatedly revised and supplemented throughout the course of the pandemic, including military deployment into overwhelmed homes (Carman, 2020; Ireton, 2020; MacCharles, 2020). Directive #3 provides LTCH residents, a significant vulnerable population, with added supports and guidance which was needed, while PWUOs-another vulnerable population-failed to garner support even when data clearly demonstrated need from escalating mortality rates exceeding those of LTCH residents (CIHI, 2021, PHO, n.d.). Directive #3 demonstrates the application of targeted measures on a particularly vulnerable population. Unfortunately, the same protective measures were not available for PWUOs. Other targeted measures were implemented such as liquor and cannabis stores remaining open, which offers support to a potentially more acceptable forms of substance use during the pandemic. In August 2020, the Federal Minister of Health requested provinces and regulatory colleges provide care options for PWUOs. The request was not binding, resulting in the absence of a standardized or comprehensive provincial response (Government of

Canada, 2020, August 24). In October 2020, Health Canada, created an exemption to the Canadian Controlled Drugs and Substances Act (CDSA), allowing PWUOs to stay home and self-isolate, enabling pharmacists to renew, extend, and transfer narcotic prescriptions; permitting verbal prescriptions of controlled substances; and allowing home delivery of controlled substances (Comeau et al., 2023; Health Canada, 2021). All to say, all levels of government were aware of the harm PWUOs experienced during this timeframe, however a concerted, coordinated effort to support this population did not occur.

Essential treatment pathways for PWUOs, including inpatient or residential treatment programs, counseling, medication management, and gradual trials away from the program, with outpatient and community services, are significantly impacted by PHMs due to closures, reduced capacity issues, long wait times culminating in barriers to needed services (Bose et al, 2021; Gomes et al, 2021b; Hutchinson, 2023). Closures result from non-essential service reductions, limitations on bed spacing from IPAC guidelines, and limited PPE for community agencies (OH MH&ART, 2020a). Within the USA, temporary policy changes were instituted by federal and state governments for PWUOs to increase flexibility, and access to services while supporting stay-at-home orders and physical distancing (Henry et al., 2022; Krawczyk et al, 2023; LeBeau et al., 2024). Policy changes include scope of practice changes, prescribing and dispensing changes, use of telemedicine, and the expansion of essential service programming, such as admissions, harm reduction programs, psychoeducation, and naloxone training and distribution. (Henry et al., 2022). In some states, policy changes were rapidly co-designed and communicated, replacing slower top-down approaches (Henry et al., 2022). Within Ontario, similar mandated policy changes did not occur.

Policy considerations for future pandemics must be inclusive of PWUOs to ensure access to the services they consider essential. To accomplish this, clear federal and provincial policy directions are required, defining addiction services as essential. Lessons learned can be gathered from the Canadian and American approaches where policy changes were introduced during the pandemic with varying degrees

of success. Lives lost that exceeded LTCH resident deaths need attention, clarity in response and essential services that must be maintained to avoid a similar crisis.

Increased vulnerability and stigma. The effects of COVID-19 and the PHMs used to control viral spread have profound consequences for PWUOs and those who served them within Ontario and the NSM region. The mortality experienced during the first year of the pandemic for PWUOs demonstrating increased harm compared to pre-pandemic periods, highlighting existing vulnerabilities intensified during COVID-19 and the PHM restrictions (Brophy et al, 2021; CCSA 2020; Friesen et al, 2021; Gomes et al., 2021a; Gomes et al., 2022; Lia et al, 2020; Russell et al, 2021; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022; PHO, n.d.; Simon et al, 2021). Evolving research of SPs working with PWUOs, indicates the psychological effects experienced, however, the duration remains unknown (Brophy,2021; Lia, 2020; Simon, 2021; Voth, 2022). Stating that COVID-19 increases vulnerability for PWUOs may seem an obvious; however, vulnerability is a complex concept that requires definition (Grabovschi, 2013; Katz, 2020; Levin, 2004; Clark & Petro, 2018; Breckan-Roche, 2017). Vulnerability refers to social groups at increased risk of adverse health outcomes, evidenced by increased morbidity, mortality, and poor quality of life (Flaskerud & Winslow, 1998). Clear definitions help avoid vagueness, false narratives, and misleading inferences, which could result in misguided interpretations or ineffectual interventions (Clark & Petro, 2018; Katz et al., 2020). Caution is required when using the term vulnerability to avoid over-categorization, paternalistic interventions, and loss of autonomy (Clark & Petro, 2018; Levin, 2004). Katz et al (2020) describe scientific racism as an overarching term where public health researchers and policy makers narrowly focus blame for preventable illness on the vulnerable population, framing illness as biologically determined and/or the result of poor choices (Katz et al.,2020).

Within health care and health policy, several important core concepts emerge. Vulnerability is closely associated with health outcomes, particularly higher rates of morbidity, premature mortality, or a worsening in their quality of life (Clark & Petro,2018; Flaskerud & Winslow,1998; Grabovschi, 2013;

Nyamathi et al., 2007; Patrick & Flegel, 2018). Poor health outcomes are associated with external factors (COVID-19), particularly affecting socially vulnerable populations who lack resources or capacity to protect themselves and may not be able to comply with PHMs such as social distancing and staying home, compared with more affluent and better resourced groups (Gaynor & Wilson, 2020; Tam, 2020). Vulnerability and disparity, defined as the inability to access resources such as quality health care, social connections and/or economic resources, share a relationship (Braveman, 2014; Grabovschi, 2013; Flaskerud/Winslow, 1998; Nyamathi et al., 2007). As vulnerability increases, health care needs and the risk of illness increase; if access to health care does not increase accordingly, disparities and health outcomes worsen. This relationship is evident among PWUOs living in NSM, who experience intensifying vulnerability as access to needed services decreases during the pandemic due to the PHMs (Gaboviski, 2013; Flaskerud & Winslow, 1998; Nyamathi et al., 2007).

Leading into the pandemic, PWUOs are already in an opioid crisis, compounded by comorbidities related to their drug use. Further restrictions to health and social services, which are already limited within NSM, exacerbate disparities and likely contribute to increasing mortality (Brens et al., 2018'; CCSA 2020; Friesen et al, 2021; Gomes et al., 2021a; Gomes et al., 2022; Lia et al, 2020; Russell et al, 2021; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022; PHO, n.d. For PWUOs, the need to comply with social distancing restrictions may have inadvertently increased using alone, and the risk of overdosing.

Persistent narratives suggesting addiction is a preventable condition, or a personal choice are stigmatizing. These false narratives and assumptions must be avoided as they result in ineffective interventions. Policy responses during the year of the pandemic fail to implement targeted interventions within NSM to support PWUOs despite known elevated opioid toxicity deaths and limited supports within this region. This omission may indicate the presence of structural stigma embedded in repeated policy decisions regarding the PHMs. Addressing persistent structural stigma for this population through

proactive policy planning with clear accountabilities to ensure sustained access to needed services is maintained. Ensuring addiction services remain open with the necessary ongoing supports in place to (e.g., PPE) to mitigate similar levels of harm in future pandemics or other large-scale events is essential.

For staff who care for PWUOs, the long-term effects of the pandemic on their health outcomes are not as clear. As essential workers, the option to stay home for health care providers to avoid the risks was not available without risking potential job loss. Concerns regarding PPE availability and quality was problematic; worries about infecting loved ones meant staying away from home for periods of time (Becene et al., 2024). For this group, psychological harm resulting with long/challenging hours of work, questionable ability to access support services and other quality resources, likely culminated to increase their vulnerability. Consideration of their experiences is needed to inform future pandemic responses, understanding what types of supports were effective and for what duration. Understanding the vulnerabilities of both the PWUOs and their SPs is essential to ensure future pandemics are informed by the learnings from COVID-19 to help support a more equitable and effective response.

4.5 Limitations.

The focus of this analysis is on the PHMs introduced in Ontario during the first ten months of the pandemic. Implications for PWUOs and those SPs caring for them, are based on a wide variety of public documents and approved minutes. While all attempts were made for a comprehensive scan of documentation, the researcher acknowledges that relevant documents may be missed in this analysis. Public policy decisions do not include background discussions and deliberations leading up to the actual policy decision, resulting in interpretation and subjectivity during the analysis and findings. Not including key policy decision makers and those directly impacted through interviews is a limitation in this analysis. The researcher's positionality and lived experiences, are acknowledged as contributing to and informing her interpretation of the data and findings. Finally, the focus of this analysis is within the province of

Ontario, Canada and a specific region within Ontario. As a result, any broader interpretation and application of the findings must consider this.

4.6 Conclusion

The initial phase of this research focuses on the descriptive analysis of policy decisions and PHMs identified as significant for PWUOs and SPs caring for them, chronicling the first ten months of the pandemic within the NSM region in Ontario, Canada. The retrospective policy analysis, completed using the 3I+E framework, which elucidates the following four themes:

1. System Coordination: Structures are in place that hinder system integration, causing delays, closures and variability in interpretation and application of measures. Consideration must be given to modify existing legislation during an emergency response, such as a pandemic, to enable coordinated and timely action.
2. Transparency & accountability: Policy decisions need to follow best-known evidence; expert advice, and principles of transparency with clearly defined accountabilities. Outstanding recommendations must be implemented with clear oversight to avoid repeating gaps within the public health system. Structures put in place need greater authority versus advisory roles, such as the PHO. CMOH needs to execute existing powers to assist in coordinating public health responses, with clear definitions to ensure interpretation and values are mitigated.
3. Targeted Measures: Policy decisions are not targeted to support the needs of PWUOs such as low barrier access and essential services for PWUOs. Clear, data-driven definitions of vulnerable populations require attention and targeted supports during emergency responses to avoid similar death tolls.
4. Increased Vulnerability and Stigma: Policy decisions applying universal measures, further disadvantage PWUOs, worsening health outcomes and increasing levels of vulnerability and disparity, particularly in

more rural environments. Due to the repeated PHMs used, structural stigma must be considered. Focus must be given to emergency response policies through the eyes of individuals with lived experience to ensure stigma is objectively identified and addressed before the next major emergency occurs. Future policy research will draw greater attention to strategies that worsen conditions for vulnerable populations such as PWUOs and those SPs caring for them.

Through this policy analysis, the themes generated inform provincial governments within Canada and future emergency response coordination. Additional targeted measures must be considered for specific vulnerable populations such as PWUOs and SPs, particularly within rural areas, when applying universal PHMs for the “greater good.” Added mitigation is required to avoid similar levels of harm and address ongoing structural stigma within health policies related to emergency responses.

Chapter 5: Discussion, Themes and Theoretical Constructs

5.0 Introduction

The purpose of this thesis was to increase knowledge of the factors that influenced policy decisions related to the implementation of PHMs, as well as the effects these measures had on PWUOs and those SPs caring for them from their perspectives. The research took place within an urban/rural region of Ontario during the first ten months of the pandemic using lived experiences and policy analysis. The overarching aim was to apply insights from the findings to inform future pandemic policy and practices that may reduce similar harms for PWUOs residing in similar areas. Interpretive description was used to inductively develop themes within each research study. This chapter presents the overarching themes identified across the three studies, providing highlights through examples. These themes were reviewed for the presence of the proposed theoretical constructs of stigma, vulnerability/disparity and syndemic theory, which were present either as influencing factors or within the resultant themes. The chapter will conclude with potential implications for practice, policy, and research.

5.1 Overarching Themes

Three overarching themes emerge from this research: 1. PHMs worsen circumstances for PWUOs residing within NSM; 2. Inequities resulting from the sentiment of the “greater good; and 3. Failing to learn. Table 5.1 below summarizes these themes. Universal PHMs introduced provincially exacerbate pre-existing regional disparities and vulnerabilities in NSM by further restricting access to already limited health and social services, disrupting treatment, housing, and harm-reduction supports. Participants describe lived experiences illustrating how PHMs contribute to a worsening drug supply, riskier behaviours, and relapse and increased use. Participants also highlight risks arising from temporary housing, including isolation, using alone and the increased presence of criminal activity and drugs. Provincial directives allowed for ambiguity, resulting in local interpretations of what constitutes essential

services, which create variability in available services. Further compounding these impacts is a concurrent health system restructuring, which creates coordination challenges, unclear authority, and delayed responses to local needs. Finally, despite prior learnings and recommendations from earlier public health crises, the repeated deployment of universal PHMs without targeted support reveals a persistent failure to learn contributing to harms experienced by PWUOs.

PHMs worsen circumstances for PWUOs residing in NSM. This theme profiles the lived experiences of the participants, their perceptions regarding the PHMs effects on their circumstances, how pre-existing system disparities are intensified by the PHMs, deepening barriers to services. Meeting minutes from various committees highlight and note the level of service reduction and closures, which intensify already limited resources for PWUOs in the NSM region. PHM-related disruptions occur alongside significant volatility in the illicit drug market. As IMFs become increasingly potent and unpredictable during the pandemic, PWUOs must navigate reduced services, limited treatment access, and constrained harm-reduction supports, while facing a drug supply that is markedly more dangerous than before the pandemic, intensifying the harms they experience. It remains unclear whether the worsening supply results from pandemic-related disruptions, as with previous events, or from criminal elements seeking to counter safer-supply initiatives or OAT through increased potency and dependency. Participants note the worsening drug supply, and situations in shelters where drug access and cohabitation make abstinence incredibly challenging, contributing to relapses and initiation of use. Policy actions to increase hotel space and provide monetary benefits through CERB may create environments where isolation and using alone, with increased access to money inadvertently increasing the risk of overdose.

Ambiguity in provincial directives enables local health care facilities and professionals to determine types and levels of service reductions without clear definitions, service expectations, or mitigating strategies for vulnerable populations such as PWUOs. The situation is further exacerbated by the health system transformation occurring in Ontario leading into and during the pandemic response.

This may have contributed to a level of distraction and chaos that resulted in potential delays, coordination issues arising from evolving structures, new leadership, and issues of unclear authority. Consequently, an integrated and coordinated response is challenging; inconsistent interpretation and implementation of the directives and guidelines lead to local service variability and unclear authority. New Ontario Health structures mobilized for the pandemic response may have limited understanding of long-standing local issues, contributing to a lack of mitigations to offset local needs and vulnerabilities.

Table 5.1. Overarching themes of this dissertation.

Chapter 2 SP Themes and Subthemes	Chapter 3 PWUOs Themes and Subthemes	Chapter 4 Policy Themes and Subthemes
Theme 1: Worsened Circumstances from Public Health Measures.		
Exacerbated harm and risk; Worsening circumstances and worsening use: Prior disparity of region – deteriorated with PHMs due to increasing barriers to services and closures to treatment beds, reduced housing, and confirmed worsening use and drug adulteration occurred; confirming overall worsening health and mortality. Subthemes: • There's no winning. • Exacerbated harm and risk • Some positive impacts	Disparity and Worsening Health: PHMs worsened access limited services due to closures/restrictions. Drug supplies were disrupted and dangerous due to adulteration and unknown origins. Poor housing and exposure to drugs Resulting in worsening use, relapses, and mental & physical health. Subthemes: • Dark Times • Worsening health – from bad to worse	System Coordination: variable interpretations of essential services resulting in variable, inconsistent service access between provinces and local regions subject to value-based decisions and closures to already finite resources within the region. Subthemes: • Institutions • Ideas
Theme 2: Inequities of the “Greater Good”		
Exacerbated harm and risk; Worsening circumstances and worsening use. Subthemes: • There's no winning. • Exacerbated harm and risk • Some positive impacts	Disparity and Worsening Health Subthemes: • Dark times • Increased Disparity • Worsening health-from bad to worse • Some good	Targeted Measures: PHMs rapidly deployed to contain the spread of COVID-19 disproportionately affected PWUOs who were known to be in a prior public health crisis prior to the pandemic. The measures introduced disrupted services PWUOs relied on, created access issues and contributed to known riskier behaviours such as using alone Subthemes: • Interests • Ideas • External Factors
Theme 3: Failing to Learn		
There was no winning; Exacerbated harm and risk; Worsening circumstances and worsening use demonstrated a mutual deterioration for both SPs and PWUOs which repeated/worsened over two waves. Subthemes: • “There was no winning.” • SP Worsening Mental Health & Burnout	Disparity & Worsening Health: PHMs worsened access repeatedly during two waves Subthemes: • Increased Disparity • Worsening Health – from bad to worse	System Coordination; transparency and accountability; targeted measures and increased vulnerability and stigma: The 4 areas of 3I+E framework illuminate failed learning. Subthemes: • Institutions • Interests • Ideas • External Factors

Inequities of the “greater good”. The pandemic does not affect everyone equally, with some populations disproportionately affected to a greater extent (Conway et al., 2022; Gaynor & Wilson, 2020). With the

broad deployment of PHMs, rapid shifts in service accessibility and practices occur. Universal measures fail to account for areas where supports and resources are already limited and problematic before the pandemic, such as in more rural areas (Ali et al., 2025; Thomas et al., 2020). Consequently, as broad directives and orders are rapidly deployed, under-resourced regions are inequitably impacted due to compounding prior limitations with profound levels of harm resulting in the NSM region (Public Health Ontario [PHO] n.d.). Within NSM, decisions are made to close the only concurrent treatment beds and services within the region, reassigning staff to fulfil requirements to increase COVID surge capacity. This affects PWUOs in the region, who struggle with increased opioid-related deaths and limited resources (Brens et al., 2018; Eisener et al, 2022; PHO, n.d.). Provincial orders to work or learn from home, and the shift to virtual care services to mitigate the spread of COVID-19, further exacerbate inequity for PWUOs. While participants described some positives associated with virtual care, such as ease of access and not having to leave work, issues of accessing these services remain dominant. Issues included limited access to technology and Wi-Fi, limited understanding of how to use or access the technology or not being well enough to access it or remain focused during sessions. While the shift to virtual services occurs within NSM, in-home visits are suspended until PPE and criteria to safely conduct home visits are established. Those unable to access virtual services remain without supports. Local agencies respond by developing policies and supports for staff to learn and adopt the shift to virtual care as quickly as possible; however, this transition requires time. These provincial-level decisions ultimately intensify inequity and barriers to access, leaving local leaders to develop and implement mitigation efforts, which occur in NSM. Local initiatives are noted, such as increased carries, however, not in a consistent and coordinated manner from a provincial approach.

Failing to learn. The final overarching theme is the ongoing and persistent failure to learn. This theme is evident through multiple examples where decisions fail to apply what is known from best evidence and from an existing public health crisis among a population experiencing increased vulnerability and harm.

Recommendations arising from previous events, such as SARS Commission Report, are not fully implemented, resulting in similar, repeating issues during this pandemic (Archives of Ontario, 2026; Office of the Auditor General of Ontario, 2020a, 2020b, 2020c, 2020d). Limited PPE, service closures, and delayed testing results, lead to delays in treatment and unclear authority. An outdated provincial pandemic plan (2013) demonstrates a drift away from preparedness and an incongruence with the evolving provincial health care transformations underway prior to the pandemic. Leading into the pandemic, issues of workforce burnout and limited hospital bed capacity are known and result in concerns of system overwhelm. Consequently, decisions are made to rapidly increase both ICU and hospital beds during the initial weeks of the pandemic, with closures of nonessential services and the shifting of staff to support the increased system capacity (Financial Accountability Office of Ontario, 2020).

During the first ten months of the pandemic, universal PHMs are deployed without targeting measures to support PWUOs despite these known vulnerabilities and rising mortality rates. Elaborating on these themes, the following section explores the conceptual constructs of stigma, vulnerability, disparity and syndemic response.

5.2 Conceptual Constructs

From the perceptions of the participants in this research and the worsening rates of opioid toxicity deaths occurring in this region, the presence of stigma, vulnerability and disparity, present prior to the pandemic, are evident within the resultant themes and findings. These constructs, which intensify during the pandemic, add to the possibility of a syndemic response. Previous harms (higher opioid toxicity deaths, co-morbidities of drug use) and those of COVID-19, collide with worsening social infrastructure and health disparities, intensifying the harm experienced by PWUOs over the first ten months of the pandemic. PWUOs appear to be treated as a devalued population where universal PHMs are implemented in a manner that excludes them from essential services and fails to account for prior vulnerabilities, reinforcing

stigma at an individual, institutional and system level. At an individual level, participants describe fear and mistrust of government and service agencies. At an institutional level, decisions are made that fail to mitigate known vulnerabilities, especially when protection is made available to other known vulnerable populations. As PHMs are introduced, with the associated consequences of closures, reduced capacity and shifts to virtual care, the disparities PWUOs experience intensifies, as does their worsening health outcomes. These impacts are more pronounced in rural areas such as NSM, where social support and infrastructure are more limited, further compounding the disparity experienced. Within this context, the convergence of the opioid crisis and the COVID-19 pandemic within an area with limited support, a syndemic effect results, with sharply increasing opioid-related mortality.

Stigma. Findings from this research demonstrate the possible presence of stigma for PWUOs in this region, as they are treated inequitably. The implementation of universal PHMs excludes them from key services required for their basic needs and quality of life (Cheetham et al., 2022; Thornicroft et al., 2007). The presence of stigma associated with opioid substance use at various levels is well-documented and is consistent with findings from the literature: individually, institutionally, and systemically (McCradden et al., 2019). Individually, PWUOs participants express a high degree of fear and mistrust of agencies and government. These beliefs, potentially generated from misinformation or potential previous experiences, may contribute to increased risk of exposure or avoiding treatment and services when available (Cheetham et al., 2022).

At an institutional level, examples of how directives are interpreted and implemented demonstrate a lack of recognition towards PWUOs through a failure to appreciate pre-pandemic vulnerabilities, a failure to mitigate the disparate and limited resources, and failure to provide essential services to support them. At a macro level, the repeated implementation of PHMs without mitigation, despite the communication of concerns at a provincial level, also exhibits the potential presence of structural stigma. The provincial government provides mitigation to other vulnerable populations in need,

such as seniors living within long-term care homes. The provision of supports to certain vulnerable populations reinforces recognition of the challenges the PHMs create in these environments, however PWUOs are not given the same attention despite the increasing mortality rates. The lack of mitigating support for PWUOs conveys potential values where vulnerable PWUOs are regarded as lessor than other vulnerable populations (Cheetham et al., 2022). This failure to respond is not based on unawareness; rather, the lack of response illuminates the potential presence of prejudicial attitudes and discrimination as indicated by the lack of macro level government policy decisions to support PWUOs (Cheetham et al., 2022).

Vulnerability and disparity. There are the predominant presence and escalation of vulnerability and disparity from the participants' perspectives shared in this dissertation. Evidence and commentary confirm the presence of pre-pandemic vulnerability and disparity through higher rates of opioid deaths and limited resources within the NSM region. As the pandemic unfolds and PHMs are rapidly deployed within the region, participants comment on deteriorating conditions, increasing risks of poor health, and poor quality of life (Flaskerud & Winslow, 1998; Grabovschi et al., 2013). The association between reduced access and increased vulnerability is evident through the participants' comments and resultant themes associated with the universal PHMs and the rising opioid death rate (Grabovschi et al., 2013; PHO, n.d.). PHMs cause service closures (health and social), shifts in practice to virtual care, testing capacity issues, and limited PPE, which combine to worsen access to needed resources and services for PWUOs. This intensifies disparity and inability to access services resulting in declining health and quality of life outcomes, which PWUOs' and SPs' comments demonstrate.

Syndemic theory. Leading into the pandemic, an underlying public health crisis is occurring within Canada from opioid toxicity deaths, which is further aggravated by the pandemic, with deaths almost doubling during the first year of the pandemic (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022). Within Canada, Ontario is one of the top three provinces experiencing the highest rates of opioid

toxicity (Gomes & Juurlink, 2019; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022). The level of harm experienced leading into and during COVID-19 varies across the province of Ontario, with rural and non-urban areas experiencing disproportionately higher levels of opioid-related harms than the southern urban centres at 44.2 opioid-related deaths per 100,000 versus 12.2 per 100,000 (Ali et al., 2025; PHO, n.d.; Thomas et al., 2020). The NSM region is affected by rurality, where access to services and limited public transportation are further affected with the implementation of PHMs. The collision of the pre-pandemic opioid crisis and the COVID-19 pandemic within a region where social supports and infrastructures are limited is perceived by the participants in this research to worsen harm for PWUOs in this region. Pre-existing disparities in the region are worsened with the implementation of PHMs in conjunction with the opioid crisis to potentiate the level of harm being experienced in this region, outcomes demonstrated by rising death rates (PHO, n.d.) support the presence of a syndemic response occurring within this region (Singer & Clair, 2003; Thomas et al., 2020).

5.3 Implications for Future Pandemics

The findings from this dissertation, and the resultant overarching themes, have implications for future pandemics. The following section highlights implications in three distinct areas which are not mutually exclusive: 1. Practice, 2. Policy, and 3. Research.

Practices within health. The findings for both SPs and PWUOs within NSM have several implications for practice in the event of future pandemics. Working with local tables such as the Simcoe Muskoka Opioid Strategy table within NSM, and provincially such as the Mental Health and Addictions Centre of Excellence – OH, practice changes can be reviewed and planned with provincial and local leaders and those with lived experience. Recognition of services supporting PWUOs in more rural areas such as NSM are limited pre-pandemic, and further affected by the PHMs, indicates the need for a more deliberate approach to understanding practice changes to assist in planning for future pandemic responses. Similarly, addressing

barriers to access through. clear mapping of services supporting PWUOs to identify areas where disparity exists, can assist with planning and mitigation strategies to bolster equity in these areas. Engaging provincial-level tables can raise awareness and advocacy for substance-use services in rural regions. Clearly defining vulnerable populations at all levels, explicitly during decision making processes, can assist in increasing visibility, reducing ambiguity, and limiting value-based decisions in future pandemics. Understanding that the rural nature of this region has consequences with respect to the inequities of services and the level of harm experienced by PWUOs is also important for proactive planning to ensure pandemic plans address vulnerable populations such as PWUOs to ensure essential services, inclusive of staffing models, are planned and provided.

The level of mistrust and misinformation expressed by the participants in this region is concerning. Targeted education and awareness campaigns can assist in reducing this response in future pandemics. Local agencies and service providers who work closely with PWUOs, using co-design approaches to partner and develop key strategies and communication practices to build trust, can develop highly visible and meaningful messaging from trusted sources to address conspiracy-based thinking. Working with PWUOs as partners helps clarify why this level of mistrust and rhetoric is so prevalent and how to best address it.

In addition to the harm experienced by PWUOs in this region, SPs indicate residual harmful effects of the pandemic several years past the peak. This may demonstrate the need for longer-term supports for SPs, and recognition that practices instituted to respond to COVID-19 surge affect SPs. Returning to normal services and operations does not mean SPs have moved past the harm they experienced during the pandemic. Several areas requiring further research include planning processes for long-term supports, understanding which supports aid SPs, and identifying whether practice shifts were harmful to health care workers and their families.

Implications for policy change. Urgent policy change is needed to support an integrated approach across all levels recognizing PWUOs as a vulnerable population with clear mitigation strategies to ensure essential services are maintained, particularly in rural areas where service disparity is higher and where opioid-related deaths far exceed urban areas. Engaging people with lived experience at policy tables informs policy change needed to increase access and ensure their interests are addressed in future pandemic responses. Local partnership among researchers, leaders from various levels, and advocacy groups support coordinated local pandemic plans, ensuring this vulnerable population is represented and that services are identified as essential to avoid similar harm. Collaborating with people with lived experience assists in identifying and raising awareness about stigmatizing policy decisions, helping to mitigate noted “blindness,” service variability, barriers to access, and disproportionate harm in future pandemics.

Leading into the pandemic, burnout and capacity issues are known. Policy changes are needed to ensure preparedness is maintained through integrated plans and clear accountabilities to ensure preparedness, coordination, and service plans (essential services and staffing). This includes PPE, staffing levels, bed capacity, and social services within the community. As fiscal pressures mount post-pandemic, bed and service reductions are occurring across the province of Ontario in efforts to address Hospital Service Sustainability Plans set forth by the provincial government. As the COVID-19 pandemic becomes more distant, recommendations and lessons learned become less prioritized, with attention shifting elsewhere, and frankly, the desire to forget. Efforts to curtail cost, layoffs, and bed closures are anticipated across the health system, making public health care and preparedness a lower priority. This perpetuates vulnerabilities similar to those experienced at the outset of COVID-19. Policy changes are needed to ensure emergency preparedness remains at the forefront, addressing capacity challenges, rurality, and vulnerable populations are planned for and supported, especially during times of fiscal restraint.

Future research implications. Further research opportunities exist in several areas. Expanding research to better understand the vastly different levels of harm experienced between urban and rural areas within the province, specific to PWUOs and SPs, is needed. If similar disparity and harm are to be avoided in future pandemics, service levels and practices used between urban and rural regions for substance treatment need further exploration. Included within this research, is the need to understand the effects of key policy decisions related to hotelling, CERB, and virtual care models, local initiatives such as increased carries, to better understand the consequences of these decisions for PWUOs. Whether these rapidly employed policies and shifts in practice are effective in reducing harm or did they potentiate harm needs examination. Time must be taken to research and understand these approaches with respect to access. Including people with lived experience, incorporating policy makers as part of the research teams helps ensure areas of exploration, need, and vulnerability are addressed with the intent of generating policy actions and mobilize policy change. Inclusion of people with lived experience, including policy makers as equal partners throughout the research design and process is an evolving area of inquiry to better understand the efficacy of this approach in achieving research objectives and policy development.

Themes related to mistrust and conspiracy-based thinking are prevalent among PWUO participants. Further research assists in determining if this is specific to this region or a broader experience. With greater understanding, more can be done to develop strategies to address these findings. Partnering with PWUOs in the research ensures their voices are heard in the development of strategies relevant to them, and likely more effective.

Understanding the longer-term effects from COVID-19 on SPs, specifically those caring for the PWUOs and more broadly needs further researched. Lessons learned from the effects from redeployment, long working hours, chronic fear and attrition need examination over time. Understanding these long-term effects informs future pandemic responses to avoid harmful practices and provide supports known to be effective in addressing harm. In efforts to return to normal operations and forget the pandemic, this

research demonstrates some SPs may still be experiencing lingering harm. If SPs are expected to respond in future pandemics, knowledge is needed to understand how best to support them throughout the response and aftermath.

5.4 Strengths of this Research.

There are unique features and findings from this research. First, the findings are developed from the lived experiences of the participants, rather than relying on statistical data and documents. Responses from the participants enable context to be added to the statistical data. Secondly, the research design involves people with lived experience, which helps ensure questions are relevant and understandable, largely administered by people with lived experience. Finally, the participants are from a more rural region of the province, making the findings more specific to this setting.

The 3I+E policy framework provides a solid foundation to identify and organize factors that influence policy decisions and how these decisions subsequently affect the PWUOs and SPs caring for them within the region of NSM. Research using this framework to identify factors influencing policy decisions and the effects of policy related to PHMs is limited, especially when investigating the effects these decisions have on the participants residing within a specific region. Findings from the policy analysis enable connections to be identified between policy level decisions and their effects on the participants in this thesis. As cited above, findings are based on interpretation of available documents and the interpretation of these documents occurs through the lens of the researcher informed by her positionality. The inclusion of policy makers would further strengthen findings and resulting policy actions.

Chapter 6: Conclusions

Through the novel approach of combining lived experiences and policy analysis, this dissertation describes how PWUOs and those SPs caring for them experienced the effects of PHMs introduced during the first ten months of the COVID-19 pandemic in the NSM region of Ontario, Canada. Policy analysis illustrates how institutions, ideas, interests, and external factors potentially influence PHM policy decisions at a provincial and regional level, and how these decisions shaped the experiences of PWUOs and SPs caring for them. Through this analysis, new knowledge is generated that contributes to and strengthens the existing body of knowledge regarding the effects of universal PHMs and rurality on PWUOs and SPs. Potential connections are evident between PHMs implemented and the harm experienced through participants lived experiences, adding context to the existing quantitative data demonstrating increasing mortality within the region.

Several policy concerns emerge through this research. Fundamentally the way in which institutional structures are organized in Canada contribute to high levels of autonomy in health care that determine the levels and types of service offered. As a result, regional service availability is inconsistent and issues associated with rurality further shape access. System coordination during the pandemic remains incredibly challenging due to this level of autonomy. This fractured response is evident at provincial and local regional levels through the universal PHMs and how they are designed, interpreted, and implemented within regions such as the NSM. This leads to the second policy concern: the implementation of universal PHMs and how existing disparities in NSM may have been compounded as a result of the interpreted and implementation of PHMs. The participants and evidence demonstrate that NSM region experiences worsening disparity, increased vulnerability, and harm. As cited by Thomas et al. (2020), certain urban/rural areas in Ontario, such as NSM, struggle with limited access to services and infrastructure supports, which notably deteriorate with the implementation of PHMs in this region. As described by the participants, pre-existing barriers to access may contribute to increased mortality in that

region, a pattern reflected in increasing mortality rates (PHO, n.d.). Some supportive, targeted measures were noted by the participants. However, these were not implemented through a coordinated or consistent approach. Finally, the presence of confounding variables arising from policy changes such as the shift to virtual care, hoteling, and CERB, combined with the increase in IMFs further worsen levels of disparity and vulnerability for PWUOs within the NSM region contributing to a syndemic related response.

Increased barriers to access, limited services, and resources; treatment and testing delays, and a worsening toxic drug supply, culminate in deteriorating circumstances for PWUOs affecting their mental and physical health, substance use patterns, and escalating rates of overdose as described by the participants interviewed. The findings are reinforced by the SPs who care for PWUOs within this region during this timeframe. SPs describe how prior service limitations in the region deteriorate further with the implemented PHMs; they associate increased mortality with service closures and note riskier behaviours and a worsening drug supply. Participants describe limited mitigating strategies, with several highlighting local efforts and initiatives such as increased carries, Nurse Practitioners attending shelters, but in the absence of an overarching coordinated response. Lessons learned from this research underscore the need to ensure addictions and harm-reduction services are considered essential in future pandemics and that supports are established proactively to ensure this occurs.

What was surprising and concerning is the level of moral distress and harm the SPs express about their own personal experiences during the pandemic and from exposure to the deaths and harm the PWUOs experience. The PWUOs in the NSM region struggle with access to services, experience a pre-existing declared opioid toxicity crisis, and face resource limitations associated with rurality. Through I.D., the application of the 3I+E framework, and reflexive thematic analysis, supported and informed by the positionality of the researcher, the findings generate connections regarding the effects PHMs and the interplay of policy actions, and IMF have on participants. The researcher acknowledges the key absence of policy makers involved in PHM policy decisions, whose participation would have strengthened resultant

themes and actions. Engagement is required at various levels to bring the implications of this research into practice. However, caution remains warranted: as seen in previous events, as time moves forward, interest and focus on lessons become lost amid new priorities. We are already seeing this within the province of Ontario –many people seek to move past the pandemic, forget the lockdowns, social distancing, and economic suffering and harms COVID-19 caused. Research funding in this area may fall out of favour, making ongoing research efforts more challenging; accountability and advocacy in substance-use and treatment compete with other less stigmatizing or regarded as more pressing priorities. PWUOs may suffer from a form of political stigma – considered a riskier population to engage and support. Consequently, advancing the changes needed to address the findings of this dissertation will be challenging. Nonetheless, changes remain possible and necessary to address the harm experienced by PWUOs and SPs residing within NSM.

Bringing factors that influenced policy decisions regarding the PHMs to the forefront and understanding how these measures impacted PWUOs and SPs in this region, enables more informed decisions in future pandemic responses. This helps to ensure PWUOs are not repeatedly overlooked, and placed at increased risk of death due to broad “greater good” measures. Supports and services need to be proactively planned to ensure continuity during future pandemics and to mitigate the levels of harm experienced during this pandemic.

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Appendices

Appendix A Chronology of COVID-19 Policy Decisions and Impacts

Month (2020)	Governance, Public Health, and Health System Developments
January	January 3 & 8 th , 2020, emerging international reports of a novel viral pneumonia originating in Wuhan, China prompted early situational awareness activities among Canadian and Ontario public health authorities (Jan. 15). Initial communications were disseminated to local medical officers of health regarding potential surveillance implications. Jan 20 – spread outside China. Screening protocols and mandatory reporting requirements were established under existing public health legislation.
February	February 2, WHO names virus, Feb 9 – Canada expands screening requirements for travel. Month was marked by the confirmation of Ontario's first COVID-19 cases associated with international travel (Feb. 20). Provincial authorities expanded screening and surveillance activities and initiated early laboratory coordination efforts. Notably, differences between federal and provincial case definitions and testing eligibility criteria emerged, raising early concerns regarding intergovernmental alignment and consistency in outbreak detection and response.
March	March represented a pivotal escalation period in Ontario's pandemic response. Ontario Deputy Premier announces new response structure (March 2), Following the World Health Organization's declaration of COVID-19 as a global pandemic, Ontario declared a provincial state of emergency under the Emergency Management and Civil Protection Act (March 17). A series of rapidly evolving orders were implemented, including the closure of schools, child-care centres, recreational facilities, and non-essential workplaces, alongside progressively stringent limits on public gatherings. Hospitals were formally requested to activate pandemic plans, suspend elective surgeries, and preserve acute-care and critical-care capacity. Issues re PPE being raised, staff redeployment ordered through Ministerial (March 27). The Chief Medical Officer of Health issued multiple directives addressing infection prevention and control practices, personal protective equipment utilization, and the suspension of non-essential health services. Emergency funding was announced to support hospitals, public health units, and municipalities. Concurrently, new governance structures were established, including provincial command tables, scientific advisory tables, ethics tables, and sector-specific response tables. While these structures aimed to enhance coordination, tensions emerged related to role clarity, decision-making authority, and alignment between political leadership, public health expertise, and health system operations.
April	April was characterized by intensifying system strain and rapid capacity-building initiatives. The province significantly expanded hospital and intensive care unit capacity, including the development of alternate health facilities and field hospitals April 6). Widespread shortages of personal protective equipment necessitated stringent conservation strategies, evolving guidance on mask use, and exploration of N95 respirator reprocessing initiatives. Emergency orders were repeatedly extended, enabling extensive workforce redeployment across hospitals, long-term care homes, and other congregate settings. Health-care workers experienced substantial strain related to staffing shortages, altered scopes of practice, and sustained uncertainty regarding infection prevention guidance. Public concern increased following the release of modelling data projecting potential ICU capacity overwhelm. Targeted measures were introduced to address outbreaks in long-term care settings, while hospitals and community-based services reported collateral impacts on non-COVID care delivery, including disruptions to mental health and addictions services.
May	In May, Ontario initiated a phased reopening process guided by a provincial framework (May 7), while maintaining emergency authority. Virtual mental health and addictions services were expanded in response to rising psychosocial distress across the population. Emergency workforce measures, including pandemic pay programs, redeployment authorities, and regulatory flexibility, remained in effect. Hospitals began planning for the gradual resumption of elective surgical activity under clearly defined clinical and capacity-based criteria. Directive #2 rescinded (May 19). Premier announces expanded testing (May 24 th) with significant impacts on volumes and concerns re evidence to support decision
June	June saw substantial expansion of provincial testing capacity, including the introduction of asymptomatic testing in prioritized populations and settings (June 1). Ontario Health (OH) released IPAC guidelines regarding beds capacity in

	wards and spacing requirements (June 17). Ontario Premier released a comprehensive case and contact management strategy to strengthen outbreak containment efforts (June 18). Regions progressed through Stage 2 of reopening, though variability persisted in local implementation and public health unit capacity. Ongoing concerns were raised regarding workforce sustainability, data quality, and uneven application of public health guidance across sectors.
July	By July, most regions entered Stage 3 of reopening, permitting broader economic and social activity with continued public health restrictions. Emergency authorities were sustained through new legislation under the Reopening Ontario Act (July 7), allowing the continuation of public health measures without renewal of the formal emergency declaration for 30 days led by Lieutenant Governor in Council. Health system transformation initiatives, including the expansion of Ontario Health Teams, continued despite ongoing pandemic pressures.
August	In August, Ontario launched the COVID Alert digital exposure-notification application as part of its contact tracing strategy (Aug. 4). Significant intergovernmental funding flowed to municipalities through the Safe Restart Agreement to support social services, public health measures, and vulnerable populations (Aug. 12). Federal and provincial investments were directed toward expanding domestic production of personal protective equipment, including masks and respirators Aug. 21).
September	September marked the provincewide reopening of elementary and secondary schools under enhanced public health protocols (Sept. 8). Early indicators of a second wave became increasingly apparent, characterized by rising case counts and test positivity rates (Sept. 13). Testing access was broadened through pharmacy-based testing and expansion of assessment centres (Sept. 23). Workforce pressures resurged as staff resources were redirected to outbreak response and contact tracing activities.
October	In October, walk in testing was discontinued to assist labs (Oct 2). Mandatory masking policies were expanded across indoor public settings by Premier (Oct. 2) Ontario strengthened its COVID-19 response framework, introducing more restrictive measures in regions experiencing sustained community transmission. Additional funding was announced to enhance hospital capacity, address surgical backlogs, and support health-care workforce stabilization. Public and expert criticism intensified regarding the timeliness and adequacy of framework thresholds.
November	November started with the release of new framework <i>Keeping Ontario Safe and Open</i> (Nov. 3) with 5 levels based on targets. Concerns raise regrading leniency of targets (Nov 12 & 13) by OHA and Media. Targets were adjusted (Nov. 13) but not to level recommended by PHO. Health system leaders and public health experts expressed concern that interventions were insufficiently proactive to prevent hospital surge. Hospitalizations increased steadily, staff absences rose, and pressure on acute-care capacity intensified was marked by accelerating case growth and the implementation of region-specific lockdown measures.
December	In December, Health Canada authorized the first COVID-19 vaccine for use in Canada, and Ontario initiated Phase 1 of vaccine rollout targeting high-risk populations and health-care workers. A provincewide shutdown was implemented in response to escalating transmission. Hospital and ICU capacity pressures deepened, prompting renewed calls for stronger and more sustained public health interventions. Ontario Premier announced province wide lock down on Dec. 21 – but delayed until December 26.

Appendix B Service Provider Informed Consent

INFORMATION AND INFORMED CONSENT

Study Title: The collateral effects of COVID-19 public health policies: Perspectives of people who use opioids and those closest to them using a patient-oriented research approach; A co-designed partnership submission focusing on the “wicked challenge”

Principal Investigators:

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Dr. Bernard Le Foll ^{1,2}

Co-Investigators:

Dr. Chris Perlman, ³ Dr. Carrie McAiney, ³ Dr. Heather Bullock, ¹ Dr. Christopher Canning, ¹ Dr. Gillian Strudwick, ² Dr. Sara Ling²

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Sponsor:

The Canadian Institute of Health Research Catalyst Grant

INTRODUCTION

You are being invited to voluntarily participate in a research project led by Waypoint Centre for Mental Health Care and the Centre for Addiction and Mental Health (CAMH) along with our community partners. This is because you cared for people who used opioids (PWUOs) during the first two years of the COVID-19 pandemic. Your choice to take part in this study is completely **optional**.

WHAT IS THE PROJECT ABOUT?

This project explores how COVID-19 measures like social distancing and decreased services changed people who use opioids' access to services. Families/support people and service providers will also be talked to. Results from this study could help make policy options for current and future public health emergencies.

YOUR ROLE

If you choose to take part, you will have a 45-60 minute interview with some of our team members. You will meet with us to give your consent and answer questions. You will be asked to share your thoughts on how COVID-19 measures, such as social distancing may have changed PWUOs' access to services during the COVID-19 pandemic. We also want to understand your thoughts as to why you believe these changes occurred and how these changes affected you.

The interview is **voluntary**. Your participation is your choice and **will not affect your employment or your ability to care and/or treat individuals at your organization**. You do not have to answer any question you do not want to. You can end the talk early. You may leave, also known as withdraw, from the study for any reason, at any time. You can also stop the meeting and continue at another time. We can meet for the interview at a time that works for you.

RISKS

The risk of participating in this study is low. There is still a chance that uncomfortable thoughts could come up when you answer some questions. You could feel a lot of overwhelming emotions or think about past upsetting events during the interview. There is also a chance that you could be let down as your ideas may not be used in the policy options, or the government may not use the policy options from this study at all.

You can stop the interview **at any time** and for **any reason**. To prevent harm, you can take your time to answer any question. We could also take a short break, skip the last question, or move on and come back to the question later if you would like. You can also end the interview and continue later.

You will get the consent form before your interview. This could help you think about possible questions and help you get ready for the interview. If you want to withdraw from the study, the interview will end right away.

If you are a staff member at Waypoint, support can be provided by Waypoint staff. If you are not a service provider at Waypoint, support will be provided to connect you with professionals outside of Waypoint. You will also get a list of supports when getting the consent forms.

If we find other risks during the study, we will inform you and revise the consent form.

BENEFITS

Answering interview questions will give you the chance to share your thoughts. You can explain the unfairness in policy making, shed light on things that helped people who use opioids survive the pandemic, and share your thoughts on how to better prepare the healthcare system for public health emergencies. This study cannot promise any changes that you want, including actual improvements or direct benefits.

This is a non-therapeutic study. That is, there is **no intended clinical benefit** to you participating in this study.

RIGHTS

You can choose to stop the interview **at any time** and for **any reason**. Saying “I want to stop” is good enough. If you want to leave the study during the interview, all your data will be destroyed.

After the interview is over, you can choose to leave the study. If we can, we will remove the information you have shared. But, once your information cannot be traced back to you, and it has been combined with data from other participants, we will not be able to remove your data. It has to be included.

CONFIDENTIALITY

We will take great care to protect your privacy by keeping your personal health information confidential to the extent allowed by the law. The information from your interview will not be shared with your employer.

There are special cases in which we may need to share your information with others. For example, if we believe that you are at risk of harming yourself or others. Or if we believe that a child is at risk or being harmed, neglected or is seeing parental violence. If any of these situations are talked about, your information may be shared with emergency medical services, the police, or children's protective services. If a situation like this occurs, we will try our best to discuss this with you first.

If you participate, your interview will be audio-recorded. You have the right to review your audio-recording. If you want to listen or read your audio-recording or transcript, please let us know as soon as possible.

You will be asked some questions about yourself, including years in the field, gender, and clinical role. You will also be asked to discuss your clients' or patients' personal health, such as their age, gender, other health conditions (including mental health), their race, medications, and opioid usage. We will ask you to speak generally without identifying your patients or clients that use opioids. You do not have to answer any question you do not want to. These are important questions because drug use can happen at the same time as other mental health conditions. Understanding PWUOS' health conditions or the medications they were taking during COVID-19 can help us see any other changes to their services and its impact on their health and drug use.

For your own privacy, we ask that you try not to use names or other information that could lead back to you. If you share anything that could be traced back to you or others during the interview, it is okay. We will read all transcripts within one month of the interview to remove anything that could identify you or others. A transcript is a typed document of your audio-recording. This means that anything that can identify you or others will not be linked to your transcripts.

Your data will be shared with the research team. Computers accessing your data will have passwords. Dr. Marie-Soleil Hardy in the Faculty of Nursing at Université Laval will be using our data. She will look at our policy problems, our research methods, our key results and policy options. This data will be used to make a survey. Anything that can be traced back to you will NOT be shared with Dr. Marie-Soleil Hardy or her research team.

Names or other information that could be traced back to you will **never** be used when we report this study's results. Your anonymous transcripts will be stored on a Waypoint server for 7 years. This is the required time for keeping data published in a journal.

Any publication, report, or presentation from this study will keep your identity private. We will not use your name, and we will make every effort to leave out anything else that could be you indirectly.

If you have any problems with confidentiality before or after the interview, you should reach out to the Research Analyst (Megan Campbell) to talk about your issues. If you have any issues about confidentiality during the interview, you should talk to a team member.

COMPENSATION

You will receive \$25 as long as you took part in the interview. Took part in the interview means the consent form was signed and you came to the interview. You can withdraw at any time during the interview. You also have the choice to break the interview up into smaller times, and all smaller times together would make up one full interview. You would be paid \$25 for your time.

Only participants who take part in an interview may have another follow-up interview. You may be asked to take part in a follow-up interview if more explanation from your first interview is needed. The follow-up interview questions will be based on your answers from your first interview. If there is another interview, you will be paid an additional \$25. There will be no cost to you for participating in this study.

PARTICIPANTS' PROTECTIONS

This study has been reviewed by the Waypoint Research Ethics Board. If new information becomes available that could affect your willingness to participate in the study, we will inform the Research Ethics Board in a timely manner. Data may be used for secondary analysis. Data used in conferences, publications, reports or secondary data analysis will be anonymized and will not be linked back to you.

CONFLICT OF INTEREST

Research findings can at times be used for profit. In this study, there is no actual, apparent, or potential conflict of interest on the part of the researchers, their institutions, or their sponsors.

CONTACT INFORMATION FOR QUESTIONS & PROBLEMS

You can ask questions at any time by reaching out to Waypoint project team members at (705) 549-3181: Research Analyst, Megan Campbell (x3155); the Patient Partner, Madison Gould (x2930); the Principal Investigator, Linda Adams (x2047). You can also discuss your rights as a participant and ethical issues in the research with the Chair, Research and Ethics Board, Glenn Robitaille (x2216).

AUTHORIZATION AND CONSENT

I, _____ (Your Name) agree to participate in the study described above. I read each page of the consent form (or it was read to me). I understand all of the above information, and my questions have been answered. I understand the reason for this study and how the research will be used as well as the risks of participating in this study, and I agree to participate. My consent is given freely and voluntarily, without any promises, threats, or pressure.

I consent to having my interview audio-recorded. I understand that the audio-recording of this interview will be transcribed and may be seen by other members of the research team.

Print Name of Participant

Print Name of Researcher/Witness

Signature of Participant

Signature of Researcher/Witness

Date (yyyy-mm-dd)

Date (yyyy-mm-dd)

Thank you for participating!

Appendix C Service Provider Interview Guide

Script: Welcome to today's interview. Thank you for taking the time to share your experiences with me. This study focuses on your experience providing services to individuals who used opioids during the first two years of the COVID-19 pandemic.

If you are unsure of specific periods of time during the first two years of the pandemic, that is okay. Think of your experiences from the early phase of the pandemic up until vaccinations were available to the general population, around May 2021. I know that COVID-19 was very long and it may be difficult to remember parts of it, so here is a chart is helpful, here is one for you to refer to. You can use this chart any time throughout the interview.

I'd like to learn about your experiences providing services to PWUOs during the COVID-19 pandemic. I would also like to learn about any changes to community and health services that PWUOs were accessing, or trying to access for their opioid use because of COVID-19 measures. My goal is to use the information gathered today to help with future public health measures for PWUOs' should another pandemic or emergency response occur. I encourage you to share as much detail as you can think of and are comfortable sharing.

As the interviewer, I will be here to guide the questions, ask for clarification and make sure that we stay on time. Feel free to ask me to repeat or re-phrase any question and you don't have to answer any question you don't want to.

I may make notes to jog my memory but no identifying information will be written down about you. As discussed in the consent, I am also going to record this interview so that I don't miss anything you say. Anything you share here will remain confidential and will not impact your employment or relationship with your employer.

Please let me know at any point if you are uncomfortable and wish to take a break or stop the interview at any time. You also have the option to stop the interview and we can re-start at a later time. As mentioned earlier, you do not have to answer any question you don't want to. If at any point you want to end the interview please let me know and I will end the interview right away. Again, thank you for taking the time to participate in this research. Do you have any questions for me before we begin?

[If no, start the recording, and announce that the recording is being started.]

Demographic Script: Before we begin with the interview, I am going to ask you some questions about yourself. You do not have to answer any question you don't want to.

What are your pronouns?

What is your age?

What is your ethnicity?

What is your gender identity?

What is your clinical role?

How long have you been working in the mental health and addictions field?

What clinical service do you work in?

What type of clinical services do you provide? (i.e.: outpatient, inpatient, long-term, short-term)

Are patients accessing opioid agonist treatment services currently? (*Example: methadone, buprenorphine, etc.*) Are there OAT prescribers where you work?

Please describe the patient population you provide care to. What is their approximate age, gender and ethnicity?

INTERVIEW QUESTIONS

1. How did you first hear about or become aware of the pandemic?
2. How did you feel when you heard about COVID-19? When did you start to notice the effects of the pandemic on your life? How, so?

Script: *I am going to talk about your experiences **before (really emphasize the before)** the pandemic.*

3. Can you describe the services you provided to PWUOs just before the pandemic?

Probe: Do you think that the PWUOs were satisfied with the services they received for their opioid use before the pandemic? Why or why not?

Script: *Now I am going to ask about the first two years of the COVID-19 pandemic (emphasize during the pandemic).*

4. How did your organization deem what services were essential or non-essential? How did you feel about these decisions and how they were made?

5. Did the services or social supports you provided to PWUOs change during the first two years of the COVID-19 pandemic? How so?

Probe: To your knowledge, were the PWUOs' happy with the services they were receiving for their opioid use during the pandemic? Why or why not?

6. How did you feel about these changes to services for PWUOs?

Probe: Did these changes to services affect your mental health? Your work satisfaction? Moral distress? Burnout? How so?

7. Did you provide any services virtually during the pandemic?

Probe: What was your experience like providing virtual services? How did PWUOs' feel about accessing virtual services?

8. To your knowledge, how did the COVID-19 pandemic affect PWUOs' mental health? (Ex: mood, anxiety, stress, depression, etc.)

9. During the pandemic, what was PWUOs' substance use like?

9a) Did the PWUO patterns of use change during the pandemic? If so, how? Why do you think those changes occurred?

Script: *Remember this* [show infographic of Appendix P]

10. Thinking broadly, beyond clinical service impacts, what were the major things that stood out to you when these COVID-19 measures were in place?

Probe: Many aspects of everyday life were affected by the measures in the infographic (e.g., public transit, places of worship, volunteering, shelters, staying at hotels, and more). How did these measures affect your patients?

Script: *That's the end of the questions I have for you. Is there anything else you would like to tell me about your experience during the pandemic? I am going to end the recording now. [End recording]*

Thank you for participating. How are you feeling? Reminder there is a list of supports if you need them. Your insight has been incredibly valuable and I've enjoyed talking to you today. Do you have any other questions before we go? Thank you for participating.

[Reminder to give participant their honorarium]

i

ATTENTION ALL SERVICE PROVIDERS!

We want to hear from you!



We want to hear your thoughts about how access to social and health services changed for people who used opioids (PWUO) during the first two years of the COVID-19 pandemic. We also want to understand how those changes impacted you.



If you provided services to PWUO during the first two years of the COVID-19 pandemic, you have the opportunity to participate in interviews.

Participation in this study will in no way affect your employment at your organization.



This study has been approved by Waypoint Research Ethics Board
HPRA # 23.08.11.



All participants will receive a **\$25 gift card** for their time. Maximum of 2 interviews.



If interested, please contact Megan Campbell at
mcampbell@waypointcentre.ca
or at
(705)-549-3181 ext. 3155

camh



**CIHR
IRSC**

Canadian Institutes of
Health Research
Instituts de recherche
en santé du Canada

Waypoint
CENTRE for MENTAL HEALTH CARE

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Appendix E

Supports for Service Providers Working at Waypoint

Support	Description	How to Contact
Spiritual Care (Clinical Multi-faith Chaplains, Indigenous Healer)	Spiritual care provides Multi-faith support to patients. We have an indigenous healer as well as an onsite spiritual care team.	Spiritual Care Team Lead: x2681 Indigenous Healer: x2098
Trauma Incident Support Team (TIST)	TIST provides Psychological First Aid and confidential supports to staff facing traumatic events in the workplace and helps staff identify healthy coping strategies or to navigate further supports as needed.	TIST@waypointcentre.ca Zoe Hilton: x2611
Director of Ethics	This is a service for any employee who would like to discuss the potential implications of the research or would like to receive spiritual care.	Glenn Robitaille, Director, Ethics and Spiritual Care: x2216
COVID Frontline Wellness	Connects healthcare workers with supports and services to help staff enhance resilience and manage mental health challenges.	Online self-referral: https://redcap.waypointcentre.ca/surveys/?s=C98HMRK78E Or phone Central Intake: x2308

Supports for Service Providers Not Working at Waypoint

Support	Description	How to Contact
Talk 4 Healing	Providing support and resources for Indigenous women 24/7	Crisis Line: 1-888-200-9997
COVID-19 Frontline Wellness	Connects healthcare workers and healthcare organizations with supports and services to help staff enhance resilience and manage mental health challenges.	Online self-referral: https://redcap.waypointcentre.ca/surveys/?s=C98HMRK78E (Note: you do not need to be a Waypoint employee to access this service)

APPENDIX F INFORMATION AND INFORMED CONSENT

Study Title: The collateral effects of COVID-19 public health policies: Perspectives of people who use opioids and those closest to them using a patient-oriented research approach; A co-designed partnership submission focusing on the “wicked challenge”

Principal Investigators:

Linda Adams, ¹
Dr. Bernard Le Foll ^{1,2}

Co-Investigators:

Dr. Chris Perlman, ³ Dr. Carrie McAiney, ³ Dr. Heather Bullock, ¹ Dr. Christopher Canning, ¹
Dr. Gillian Strudwick, ² Dr. Sara Ling²

¹Waypoint Centre for Mental Health Care, ²Centre for Addiction and Mental Health, ³
University of Waterloo

Secondary User of Information:

Dr. Marie-Soleil Hardy ⁴
⁴Université of Laval

Key Contacts:

Research Analyst, Megan Campbell: (705) 549-3181 x3155; mcampbell@waypointcentre.ca
Patient Partner, Madison Gould: (705) 549-3181 x2930; mgould@waypointcentre.ca
Principal Investigator, Linda Adams: (705) 549-3181 x2047; ladams@waypointcentre.ca
Chair, Research and Ethics Board, Glenn Robitaille: (705) 549-3181 x2216;
grobittaille@waypointcentre.ca

Sponsor:

The Canadian Institute of Health Research Catalyst Grant

INTRODUCTION

You are being invited to voluntarily participate in a research project led by Waypoint Centre for Mental Health Care and the Centre for Addiction and Mental Health (CAMH) along with our community partners. This is because you have said that you used opioids during the first two years of the COVID-19 pandemic. Your decision to take part in this study is completely **optional**.

WHAT IS THE PROJECT ABOUT?

This project explores how COVID-19 measures like social distancing and decreased services changed your access to services. How COVID-19 measures may have changed your health and opioid usage will also be talked about. Families/support people and service providers will also be

talked to. Results from this study could help make policy options for current and future public health emergencies.

YOUR ROLE

If you choose to take part, you will have a 45-60 minute focus group with some of your peers and our team members. You will meet with us to give your consent and answer questions. You will be asked to share your thoughts on how COVID-19 measures, such as social distancing may have changed your access to services during the COVID-19 pandemic.

The focus group is **voluntary**. Your choice to participate in this study will never change the care or services you receive at your organization. You do not have to answer any question you do not want to. You can end the talk early. You may leave, also known as withdraw, from the study for any reason, at any time. You can also stop the meeting and continue at another time. We can meet for the focus group at a time that works for you and your peers.

RISKS

The risk of participating in this study is low. There is still a chance that uncomfortable thoughts could come up when you answer some questions. You could feel a lot of overwhelming emotions or think about past upsetting events during the focus group. There is also a chance that you could be let down as your ideas may not be used in the policy options, or the government may not use the policy options from this study at all.

There are other risks to focus groups. If other peers in the focus group talk about using opioids, there is a chance it could lead to you having cravings. There is a chance that the things you share in focus groups could be shared by your peers with others outside the focus group. This could lead to people knowing that you took part in a focus group. To protect you and your peers, the team will also tell you and your peers that the sharing of information with others outside of the focus group is **highly discouraged**.

You can stop the focus group **at any time** and for **any reason**. To prevent harm, you can take your time to answer any question. We could also take a short break, skip the last question, or move on and come back to the question later if you would like.

You will get the consent form before your focus group. This could help you think about possible questions and help you get ready for the focus group. If you want to withdraw from the study, the focus group will be paused and you can leave.

A list of supports can be given by various staff outside of Waypoint. You will also get a list of supports when getting the consent forms.

If we find other risks during the study, we will inform you and revise the consent form.

BENEFITS

Answering questions will give you the chance to share your thoughts. You could help others understand the unfairness in policy making and shed light on things that helped people who use opioids survive the pandemic. This study cannot promise any changes that you want, including actual improvements or direct benefits.

This is a non-therapeutic study. That is, there is **no intended clinical benefit** to you participating in this study. Participating in this study will **not affect treatment or care you may receive at your organization.**

RIGHTS

You can choose to stop your participation in the focus group **at any time** and for **any reason**. Saying “I want to stop” is good enough. If you want to leave the study during the focus group, all your data will be destroyed.

After the focus group is over, you can choose to leave the study. If we can, we will remove the information you have shared. But, once your information cannot be traced back to you, and it has been combined with data from other participants, we will not be able to remove your data. It has to be included.

CONFIDENTIALITY

We will take great care to protect your privacy by keeping your personal health information confidential to the extent allowed by the law. The information from your focus group will not be shared with your service provider team or your family/support person.

There are special cases in which we may need to share your information with others. For example, if we believe that you are at risk of harming yourself or others. Or if we believe that a child is at risk or being harmed, neglected or is seeing parental violence. If any of these situations are talked about, your information may be shared with emergency medical services, the police, or children’s protective services. If a situation like this occurs, we will try our best to discuss this with you first.

If you participate, your focus group will be audio-recorded. You have the right to review your audio-recording. If you want to listen or read your audio-recording or transcript, please let us know as soon as possible.

You will be asked about your personal health, such as your pronouns, age, gender, housing situation, your race, medications for your opioid use, and your opioid usage. These responses will be collected using a survey. You do not have to answer any question you do not want to. These questions are important to describe the group of people being interviewed. Understanding the medications you were taking for your opioid use during COVID-19 can help us see any other changes to your services and its impact on your health and drug use.

For your own privacy, we ask that you try not to use names or other information that could lead back to you or anyone else. If you share anything that could be traced back to anyone during the

focus group, it is okay. We will read all transcripts within one month of the focus group to remove anything that could identify anyone. A transcript is a typed document of your audio-recording. This means that anything that can identify you will not be linked to your transcripts.

Your data will be shared with our research team. Computers accessing your data will have passwords. Dr. Marie-Soleil Hardy in the Faculty of Nursing at Université Laval will also be using the data. She will look at our policy problems, our research methods, our key results and policy options. This data will be used to make a survey. Any of your identifying data will NOT be shared with Dr. Marie-Soleil Hardy or her team.

Names or other information that could be traced back to you will **not** be used when we report this study's results. Your anonymous transcripts will be stored on a Waypoint server for 7 years. This is the required time for keeping data published in a journal.

Any publication, report, or presentation from this study will keep your identity private. We will not use your name, and we will make every effort to leave out anything else that could be traced back to you indirectly.

Privacy and confidentiality are very important to the research team. However, there is a chance where your data could be shared with others outside the focus group. This is called a data breach. The research team cannot remove this risk of a breach, but we will tell everyone in each focus group that the sharing of information with others outside of this group is **highly discouraged**.

If you have any problems with confidentiality before or after the focus group, you should reach out to the Research Analyst (Megan Campbell) to talk about your issues. If you have any issues about confidentiality during the focus group, you should talk to a team member there.

COMPENSATION

If you used opioids during the pandemic and you take part in a focus group, you will receive a \$25 gift card. If you leave the study, you will receive the \$25 gift card as long as you took part in the focus group. You can withdraw at any time during the focus group. Taking part in this study means the consent form was signed and you came to the focus group.

PARTICIPANTS' PROTECTIONS

This study has been reviewed by the Waypoint Research Ethics Board. If new information becomes available that could affect your willingness to participate in the study, we will inform the Research Ethics Board in a timely manner. Data may be used for secondary analysis. Data used in conferences, publications, reports or secondary data analysis will be anonymized and will not be traced back to you.

CONFLICT OF INTEREST

Research findings can at times be used for profit. In this study, there is no actual, apparent, or potential conflict of interest on the part of the researchers, their institutions, or their sponsors.

CONTACT INFORMATION FOR QUESTIONS & PROBLEMS

You can ask questions at any time by reaching out to Waypoint project team members at (705) 549-3181: Research Analyst, Megan Campbell (x3155); the Patient Partner, Madison Gould (x2930); the Principal Investigator, Linda Adams (x2047). You can also discuss your rights as a participant and ethical issues in the research with the Chair, Research and Ethics Board, Glenn Robitaille (x2216).

CONSENT TO PROVIDE INFORMATION OF YOUR FAMILY/SUPPORT PERSON

We would like your family/support person to share their thoughts about how COVID-19 public health measures impacted people who use opioids' access to services. By providing contact information for your family/support person, you are allowing the research team to contact your family/support person. We will **only** use this information to see if your family/support person wants to participate in this study. This information will not be used for anything else. By giving the information of your family/support person, you understand that your family/support person's personal contact information will be safely stored. This information will only be looked at by members of the research team. If you leave the section empty, we will not contact your family/support person. Your choice to not include your family/support person will not affect you taking part in this study or your care at your facility.

Name of Family/Support Person (optional)

Email Address or Telephone Number of
Family/Support Person (optional)

AUTHORIZATION AND CONSENT

I, _____ (Your Name) agree to participate in the study described above. I read each page of the consent form (or it was read to me). I understand all of the above information, and my questions have been answered. I understand the reason for this study and how the research will be used as well as the risks of participating in this study, and I agree to participate. My consent is given freely and voluntarily, without any promises, threats, or pressure.

I consent to having my focus group audio-recorded. I understand that the audio-recording of this focus group will be transcribed and may be seen by other members of the research team.

Print Name of Participant

Print Name of Researcher/Witness

Signature of Participant

Signature of Researcher/Witness

Date (yyyy-mm-dd)

Date (yyyy-mm-dd)

Thank you for participating!

Appendix G PWUOs Interview Guide

The intro script

Script: *Welcome to today's interview. Thank you for being here and taking the time to share your experiences with me. This study focuses on your opioid use and any services you may have accessed during the first two years of the COVID-19 pandemic.*

If you are unsure of specific periods of time from the first two years of the pandemic, that is okay. Think of experiences from the early phase of the pandemic up until vaccinations were available to the general population, around May 2021. I know that COVID-19 was very long and it may be difficult to remember parts of it, so if a chart is helpful, here is one for you to refer to. You can use this chart any time throughout the interview.

I'd like to learn about your experiences during the COVID-19 pandemic. I would also like to learn about any changes to community and health services that you were accessing or trying to access for your opioid use because of COVID-19 measures. My goal is to use this information gathered today to help with future public health measures for PWUOs' should another pandemic or emergency response occur. I encourage you to share as much detail as you can think of and are comfortable sharing.

As the interviewer, I will be here to guide the questions, ask for clarification and make sure that we stay on-time. Feel free to ask me to repeat or re-phrase any question and you don't have to answer any question you are not comfortable with.

I may make notes to jog my memory but no identifying information will be written down about you. As discussed in the consent, I am also going to record this interview so I don't miss anything you say. My goal is to learn as much as possible about how you were impacted by the pandemic. Anything you share here will remain confidential and will not impact your ability to continue to access services.

Please let me know at any point if you are uncomfortable and wish to take a break for any reason or stop the interview at any time. You also have the option to stop the interview and we can re-start at a later time. As mentioned earlier, you do not have to answer any question you don't want to. If at any point you want to end the interview please let me know and I will end the interview right away. Again, thank you for taking the time to participate in this research. Do you have any questions for me before we begin?

[If no, start the recording, and announce that the recording is being started.]

Demographic Script: *Before we begin with the interview, I am going to ask you some questions about yourself. You do not have to answer any question you don't want to.*

What are your pronouns?

What is your age?

What is your ethnicity?

What is your gender identity?

Can you describe your housing situation during the COVID-19 pandemic?

Are you actively using opioids?

[If yes]: How long have you been using opioids?

[If no]: How long were you using opioids?

Are there any medications you are taking for your opioid use? (example: methadone, buprenorphine, etc.)

INTERVIEW QUESTIONS

1. How did you first hear about or become aware of the pandemic?
2. How did you feel when you heard about COVID-19? When did you start to notice the effects of the pandemic on your life? How, so?

Script: *I'm going to talk about your experiences **before** (really emphasize the before) the pandemic.*

3. Before the pandemic, what was your substance use like?
4. Were you accessing services for your opioid use pre-pandemic? (Ex: Rapid Access Addiction Medication (RAAM program), opioid agonist therapy (OAT), peer support services, overdose prevention sites, addiction, outpatient program, detox clinic, etc.)

[If yes] Tell us about this.

Probe 1: Were you satisfied with the services you were receiving before the pandemic? Why or why not?

[If no] Were you trying to access services before the pandemic? If so, what services were you interested in? Did you eventually get access to those services? (Ex: specific clinic, outpatient program, detox clinic, etc.)

Script: *Now I am going to ask about the first two years of the COVID-19 pandemic. (Emphasize during the pandemic)*

5. Were you accessing services for your substance use during the COVID-19 pandemic?

[If yes] Tell us about this.

Probe 1: Were you satisfied with the services you were receiving during the pandemic?

Why or why not?

[If no] Were you trying to access services during the pandemic?

If so, what services were you interested in?

Did you eventually get access to those services? (Ex: specific clinic, outpatient program, detox clinic, etc.)

6. [If participants engaged with similar services before and during the pandemic read this question] Since you were accessing services before and during the pandemic, did you find a change in the services? (Ex: hours of operation, capacity limits, bus route changes, etc.) If so, how?

Probe: What do you think the reasons were for this change in services? (Ex: hours available changed, format changed such as virtual, etc.)

[If participants did not engage with similar services before and during the pandemic, skip question 6]

7. Did you access any virtual services during the pandemic?

What was your experience with those services?

[If no] Were there any specific reasons you didn't access virtual services?

8. How was your mental health affected by the COVID-19 pandemic? (ex: mood, anxiety, stress, depression, etc.)

9. During the pandemic, what was your substance use like?

9a) Did you use more or less during the pandemic?

9b) Did your substance of choice change?

9c) Did you start using alone or with different people?

9d) Why do you think your substance use changed?

Probe: Anything else?

Script: *Remember this* [show infographic of Appendix P]

10. Thinking broadly, what were the major things that stood out to you when these COVID-19 measures were in place?

11. Many aspects of everyday life were affected by the measures in the infographic (public transit, places to worship, AA meetings, volunteering, shelters, staying at hotels, and more). How did these changes affect you?

Script: *That's the end of the questions I have for you. Is there anything else you would like to tell me about your experience during the pandemic? I am going to end the recording now.* [End recording]

Thank you for participating. How are you feeling? Reminder there is a list of supports if you need them. Your insight has been incredibly valuable and I've enjoyed talking to you today. Do you have any other questions before we go? Thank you for participating.

[Reminder to give participant their honorarium]

ATTENTION ALL INDIVIDUALS WHO HAVE EXPERIENCE WITH OPIOID USE. We want to hear from you!



If you used opioids at least once during the COVID-19 pandemic, you have the opportunity to participate in one-on-one interviews and/or focus groups.

Participation in this study will in no way affect your treatment at your organization.



We want to hear your thoughts and experiences about the COVID-19 public health measures, and how they impacted you and your supports and/or family members.



This study has been approved by Waypoint Research Ethics Board
REB # XX.XX.XX and the CAMH Research Ethics Board
#XXX/XXXX.



All participants will receive **\$25 cash** per interview for their time.

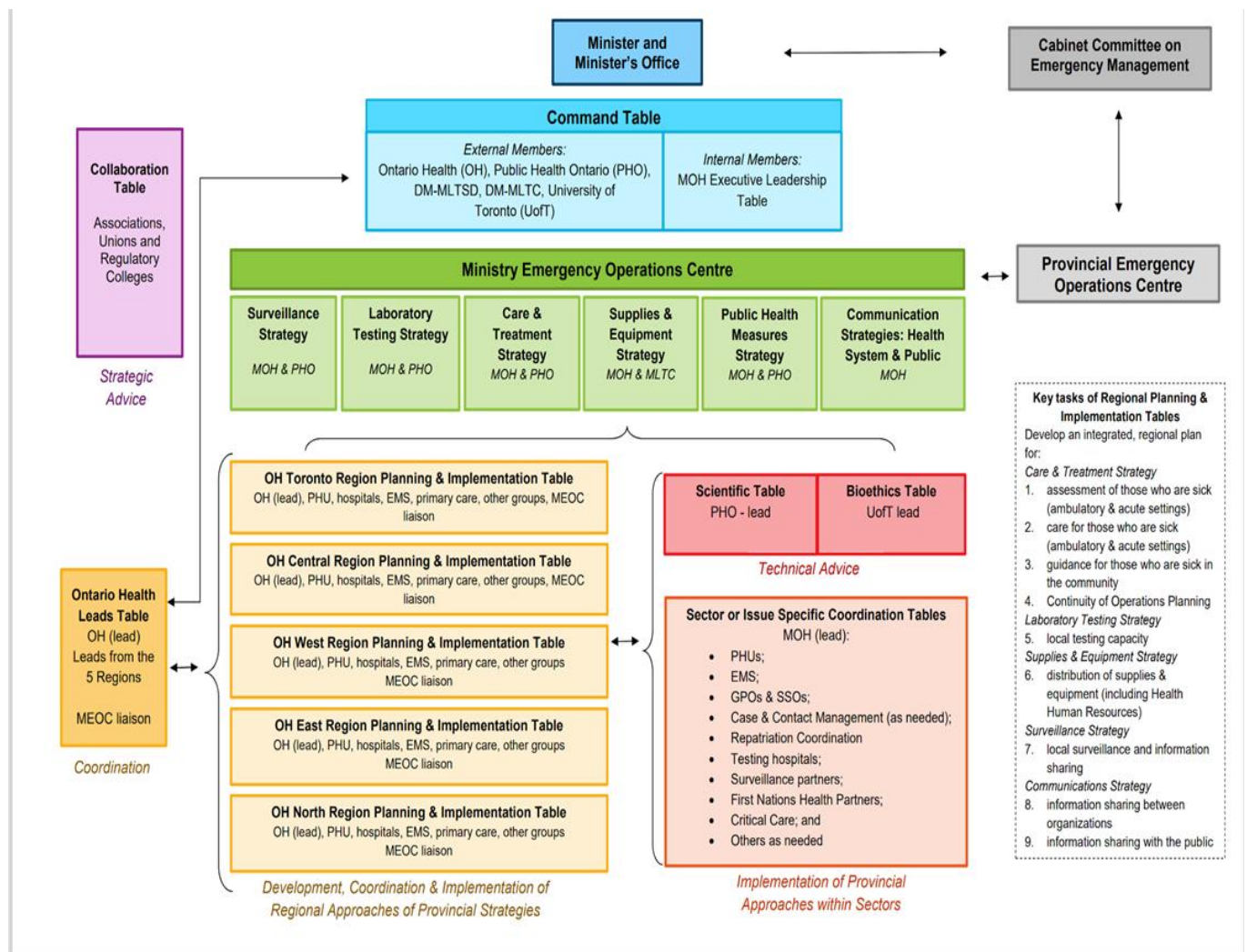


If interested, please contact Megan Campbell at **(705)-549-3181 ext. 3155** or Madison Gould at **(705)-549-3181 ext. 2930** and provide your name and what area you lived in during COVID11-9.

Appendix I LIST OF SUPPORTS – PWUOs

Support	Description	How to Contact
Patient Relations Officer (PRO)	The PRO helps patients to submit feedback, ask questions, or raise concerns about your care while seeking services at Waypoint.	patientrelations@waypointcentre.ca (705)-549-3181 x2999
PCFC (Patient/Client & Family Council) (only for inpatients or former inpatients at Waypoint)	PCFC offers support to patients and their families in a variety of ways. All PCFC staff have used mental health and/or addictions care.	(705)-549-3181 X2222
CMHA Crisis Line	This is a free service for anyone who is currently in crisis or is having thoughts of suicide.	Call: 1-833-456-4566 (available 24/7) <i>Call: 1-866-277-3553 (available 24/7 in Quebec)</i> Text 45645 (available from 4pm until midnight)
Kid's Help Phone	A free and confidential service for anyone in Canada. There are two different numbers for texting in depending on if you are a youth or adult. Trained crisis responders will help support individuals.	Text 686868 (for youth) or text 741741 (for adults) or call 1-800-668-6868 (all services available 24/7)
Ontario Narcotics Anonymous	Offers support and recovery through a 12-step program for people who are using drugs in Ontario.	Please visit https://www.orscna.org/meetings to find the closest meeting to you (Note: many Ontario meetings are still held online)
Talk 4 Healing	Providing support and resources for Indigenous women in Ontario.	Call: 1-888-200-9997 (available 24/7)
Talk Suicide Canada	This is a free service where individuals across Canada will receive support from crisis responders.	1-833-456-4566 (available 24/7) Text 45645 (4-12pm)

Appendix J Ontario Health's COVID-19 Response Structure



Note reprinted from Government of Ontario. (2020, March 2). *Ontario implementing enhanced measures to safeguard public from COVID-19.*
<https://news.ontario.ca/en/release/56030/ontario-implementing-enhanced-measures-to-safeguard-public-from-covid-19>

Appendix K Dates Emergency State Declared by Canadian Provinces and Territories

Table 1. Type and date of emergency state declared by the Canadian provinces and territories.

Provinces/Territories	Emergency State	Precisions
Alberta	State of public health emergency March 17	Gatherings of no more than 50 first and then only 15; closure of public area and popular facilities (gym, museums, arenas, galleries), self-isolation for 14 days after an international travel and 10 days for people with symptoms.
British Columbia	State of emergency March 18—This state of emergency will be extended or rescinded as necessary.	Gatherings of no more than 50; financial penalties for business and individuals; financial penalties for businesses and individuals violating public health directives (Vancouver)
Manitoba	State of emergency March 20—30 days and could be extended if necessary.	Gatherings to maximum 10
New Brunswick	State of emergency March 19—until April 15 and could be extended if necessary.	Gatherings of no more than 10; closure of all retail operations, except for essential services (Public inquiries, Veterinary Field and Laboratory Services, Motor Vehicle Safety Enforcement . . .); financial penalties
Newfoundland and Labrador	Public health emergency March 18—until April 15 and could be extended if necessary.	Gatherings of no more than 10; no-essential businesses closure; fine or jail time
Nova Scotia	State of emergency March 22—until April 19 and could be extended if necessary.	Gatherings of no more than 5; Some non-essential services remain open with social distancing
Ontario	State of emergency March 17- until April 14 and extended for 28 days.	Gatherings of no more than 5; closure of public facilities and non-essential businesses
Prince Edward Island	State of public health emergency March 16—30 days and could be extended if necessary.	Encourage islanders to avoid social gatherings; fines up to CAD10,000
Quebec	Public health emergency, March 13—until May 4.	Social gatherings are prohibited; fines
Saskatchewan	State of emergency March 18—until April 15 and could be extended if necessary.	Gatherings of no more than 10; closure of non-essential shops; individual fines
Northwest Territories	State of public health emergency March 18—until April 15 and could be extended if necessary.	Gatherings of no more than 10
Nunavut	State of public health emergency March 18—until April 16 and could be extended if necessary.	Public gatherings prohibited
Yukon	State of emergency March 27—until April 30 and could be extended if necessary.	Gatherings of no more than 10; Reduce restaurant capacity to 50%

Note reprinted from Urrutia, D., Manetti, E., Williamson, M., & Lequy, E. (2021). Overview of Canada's answer to the covid-19 pandemic's first wave (January–April 2020). *International Journal of Environmental Research and Public Health*, 18(13). <https://doi.org/10.3390/ijerph18137131>

