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OPEN

Equity-oriented frameworks to inform responses to opioid overdoses: a scoping review

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ABSTRACT

Objective: The purpose of this scoping review was to systematically identify and describe literature that uses a health equity-oriented approach for preventing and reducing the harms of stigma or overdose for people who use illicit drugs or misuse prescription opioids.

Inclusion criteria: To be included, papers had to both: i) use a health equity-oriented approach, defined as a response that addresses health inequities and aims to reduce drug-related harms of stigma or overdose; and ii) include at least one of the following concepts: cultural safety, trauma- and violence-informed care, or harm reduction. We also looked for papers that included an Indigenous-informed perspective in addition to any of the three concepts.

Methods: An *a priori* protocol was published and the JBI methodology for conducting scoping reviews was employed. Published and unpublished literature from January 1, 2000, to July 31, 2019, was included. The databases searched included CINAHL (EBSCOhost), MEDLINE (Ovid), Academic Search Premier (EBSCOhost), PsycINFO (EBSCOhost), Sociological Abstracts and Social Services Abstracts (ProQuest), *JBI Database of Systematic Reviews and Implementation Reports*, Cochrane Database of Systematic Reviews, PROSPERO, Aboriginal Health Abstract Database, First Nations Periodical Index, and the National Indigenous Studies Portal. The search for unpublished studies included ProQuest Dissertations and Theses, Google Scholar, and targeted web searches. Screening and data extraction were performed by two reviewers using templates developed by the authors. Data extraction included specific details about the population, concepts, context, and key findings or recommendations relevant to the review objectives.

Results: A total of a total of 1065 articles were identified and screened, with a total of 148 articles included. The majority were published in the previous five years (73%) and were from North America (78%). Most articles only focused on one of the three health equity-oriented approaches, most often harm reduction ($n = 79$), with only 16 articles including all three. There were 14 articles identified that also included an Indigenous-informed perspective. Almost one-half of the papers were qualitative ($n = 65$; 44%) and 26 papers included a framework. Of these, seven papers described a framework that included all three approaches, but none included an Indigenous-informed perspective. Recommendations for health equity-oriented approaches are: i) inclusion of people with lived and living experience; ii) multifaceted approaches to reduce stigma and discrimination; iii) recognize and address inequities; iv) drug policy reform and decriminalization; v) ensure harm-reduction principles are applied within comprehensive responses; and vi) proportionate universalism. Gaps in knowledge and areas for future research are discussed.

Conclusions: We have identified few conceptual frameworks that are both health equity-oriented and incorporate multiple concepts that could enrich responses to the opioid poisoning emergency. More research is required to evaluate the impact of these integrated frameworks for action.

Keywords: cultural safety; harm reduction; health equity; overdose; trauma informed

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Introduction

Overdoses related to unregulated opioids, including fentanyl and other substances, remain a public health crisis in many parts of the world, including Canada and the United States (US). In the US, the federal government declared the opioid crisis a public health emergency in 2017.¹ In Canada, it is estimated that there is an opioid overdose-related death every two hours.² Within Canada, the province of British Columbia (BC) is considered the epicenter of the crisis where, in 2019, the rate of illicit drug overdose deaths exceeded 30 per 100,000 individuals,³ with illicit fentanyl detected in 87% of drug overdose deaths.⁴ The province has remained in a perpetual crisis since 2016 when the Provincial Health Officer declared illicit drug overdoses a public health emergency.^{5,6}

Overdose deaths are not confined to one group or segment of the population, but are distributed across the social gradient. Lower-income populations, including those experiencing homelessness or at risk of homelessness, continue to carry a disproportionate burden of harms and deaths.⁷⁻⁹ In the US, illegal drug overdose death is included within the overall category of “diseases of despair” in which mortality is associated with the social inequities and structural violence experienced by those disproportionately dying.^{10,11} The links between mental health and overdose were documented in a 2018 coroner’s investigation of overdose deaths in BC that found that one-half (52%) of the 872 deaths reviewed involved individuals with a mental health diagnosis or evidence of mental health issues.¹²

The proportionate burden and impact of overdose deaths also varies by sex, gender, age, and ethnicity. Overall, there is higher rate of overdose death among males in the general population.^{13,14} Opioid-related deaths are higher among youth and adults younger than 40 years.^{7,14-16} Despite the younger population experiencing overdoses, persons who have had a non-fatal overdose are significantly more likely to have chronic health conditions including chronic pulmonary disease, diabetes, and coronary heart disease.¹⁷ Our previous research with a street-based sample of people who use injection drugs found higher rates of non-fatal overdose among younger participants and those who identify as lesbian, gay, bisexual, transgender, queer,¹⁸ while another study of adults who inject drugs found that public injection was associated with an increased likelihood of non-fatal overdose.¹⁹

Social and health inequities are apparent when comparing people who have overdoses to those who have not had an overdose, even when controlling for age and gender.¹⁷ In Canada, Indigenous people have been disproportionately impacted by the crisis due to, in part, the historical and ongoing impacts of colonization and its links to the criminalization of drug use that disproportionately impact Indigenous people.²⁰⁻²² The First Nations Health Authority in BC reported that First Nations people were five times more likely to experience an overdose event and three times more likely to die of an overdose than non-First Nations people, with First Nations women equally affected (48%) as men.²³

As the overdose crisis continues despite public health responses, there is increasing scrutiny of how structural violence and systemic inequities intersect with the stigma and criminalization of people who use unregulated drugs. Gendered and racialized violence experienced by women who use drugs increases vulnerability to intersecting risks, while public health responses are less attentive to these needs.^{18,23} Equity-oriented frameworks are recommended to better understand and respond to the interconnected social positions and sociocultural factors that impact health outcomes for people who use drugs, especially for those experiencing systemic inequities and structural violence.²⁴

Achieving health equity requires approaches that address unjust and unfair conditions so that all people attain their highest level of health possible.^{25,26} Thus, there is a need for equity-oriented responses and systems to address the unfair and unjust conditions that impact and sustain the determinants of health and resulting inequities.²⁶ Health equity is well recognized as a public health mandate, but definitions of health equity within public health vary, with differing perspectives on what a system response to health equity should incorporate. Further, there is a proliferation of health equity frameworks and tools developed to promote and measure action on health equity.²⁷ Although a health equity framework and its tools may hold practical utility in certain instances, there is a corresponding need for an explicit theoretical foundation for health equity and a clearer conceptualization of health-equity concepts. Previous research has found the theoretical understandings to be missing, implicit, varied, or limited, and links to social justice and equity concepts are often lacking.²⁸ Additionally, there remains

a knowledge and action gap that links theories of health equity and key health-equity concepts to responses to substance use, overdose, and stigma. Although health equity in public health is specifically linked with social justice, there are multiple possible theoretical conceptions including intersectionality. Applying intersectionality theory to health equity would consider how different constructions of identity and forms of discrimination intersect to create and compound disadvantages and inequities in social position. This is particularly relevant given that overdoses impact disproportionately on the basis of social positioning.

It is within this context of an abundance of evidence of inequities and stigma that we initiated a scoping review²⁹ of the literature and mapped the field of health-equity-oriented (HEO) approaches for preventing and reducing the harms of stigma or overdose for people who use illicit drugs or use prescription opioids for other than their intended purposes. An HEO approach involves recognizing and addressing health inequities that are understood as unfair, systematic, and socially produced injustices rooted in social arrangements that disadvantage some population groups more than others in terms of health outcomes and opportunities.²⁵ Our scoping review sought to identify literature that applies HEO approaches to policy, programs, and practice³⁰ in the context of a crisis level of opioid overdoses and harms of stigmatization of people who use drugs.

Through our previous work and that of others, we identified three key concepts/approaches that are foundational to HEO responses: trauma- and violence-informed care, culturally safe care, and harm reduction, each of which must be contextually tailored with particular attention to Indigenous knowledge and decolonizing approaches.³¹⁻³³

Trauma- and violence-informed care (TVIC) expands trauma-informed care to also be explicitly responsive to the violence that most people affected by systemic inequities and structural violence experience.³⁴⁻³⁶ Trauma- and violence-informed care recognizes the impact of current and past trauma and violence, including structural violence. Providers seek to create an environment in which people are not further traumatized through their encounters with the health system.^{37,38} People who use substances can have negative and even traumatic experiences with health care, policing, the criminal justice system, and social services.³⁹⁻⁴¹

Cultural safety is an approach that extends beyond cultural sensitivity and competence to focus attention on power imbalances, institutional discrimination, and the inequitable positioning of certain groups within these dynamics.^{42,43} Cultural safety requires racism and other forms of discrimination to be addressed within health care, and also requires service providers to reflect on their position of power and privilege and dominant norms within the health care system.^{30,44} While cultural safety originated in the need to address inequitable treatment of Indigenous people, it has been applied in a variety of ways to other marginalized groups and may or may not be explicit about the role of colonization.

Harm reduction includes the philosophy, policies, and practices that seek to prevent the harms related to substance use rather than reducing substance use *per se*.⁴⁵ It is an approach that is premised on the need to treat people who use drugs in a respectful, inclusive, and compassionate manner.⁴⁶⁻⁴⁸ As a public health approach, harm reduction focuses on preventing the harms of ongoing use and, in the case of illegal drug use, provides an alternative to criminalization.

These foundational dimensions of HEO approaches must then be contextually tailored so that they are optimally responsive and respectful to the populations served and local contexts.⁴⁹⁻⁵² The opioid overdose crisis is an example of a “wicked problem” that needs complex, integrated responses.⁵³ Importantly, Indigenous knowledge and concepts of decolonization are often not central in health-equity approaches, resulting in an under-representation of Indigenous approaches and priorities.⁵⁴ Indigenous and decolonizing approaches shift from deficit-based framing of Indigenous peoples and substance use to a strengths-based approach that centers Indigenous approaches to wellness and problematizes the experiences of systemic racism and discrimination.^{24,50} The approaches focus on indigenizing health and harm reduction responses to center Indigenous values, inclusion, and practice.⁵⁵ Indigenous harm reduction inherently includes reducing the harms of colonization.⁵⁶ Ultimately the literature identified in this scoping review will be used to inform a comprehensive HEO framework that integrates the concepts of TVIC, harm reduction, cultural safety, and decolonization, all of which have been shown to be integral to addressing the harms of stigma or overdose related to opioid drug use.

A preliminary search for existing scoping and systematic reviews was conducted on April 19, 2018, in the *JBI Database of Systematic Reviews and Implementation Reports*, the Cochrane Database of Systematic Reviews, PROSPERO, CINAHL (EBSCOhost), and MEDLINE (Ovid). No reviews addressing the overall purpose of this scoping review were identified. Therefore, the purpose of this scoping review was to systematically identify and describe literature that uses an HEO approach for preventing and reducing the harms of stigma or overdose for people who use illicit drugs or prescription opioids for other than their intended purposes.

Review question

What is currently known about the use of an HEO approach for preventing the harms of stigma or overdose when people use illicit or street drugs, or use prescription opioids for other than their intended purposes?

Review objectives include the following:

- i. To locate and map literature that describes or evaluates an HEO approach that emphasizes cultural safety, TVIC, and/or harm reduction.
- ii. To identify recommendations for integrating, implementing, or evaluating HEO approaches.
- iii. To describe the characteristics of the existing knowledge base (types of research or program evaluation), and identify gaps in knowledge and areas for further research.

Inclusion criteria

Participants

The target population is people who use illicit opioids or street drugs, or use prescription opioids for other than their intended purpose. This review focuses on the drug-related harms of stigma or overdose. Papers that present the perspectives of service users, service providers, or policy makers were included. Participant characteristics were described to help identify gaps in the research literature. Papers focusing on cannabis or alcohol use were excluded.

Concept

An HEO approach recognizes health inequities that are understood as unfair, systematic, and socially produced, and addresses injustices rooted in social arrangements that disadvantage some groups in the

population more than others in terms of health opportunities and outcomes.²⁵ Related terms include a social justice perspective, critical theory, or intersectionality (where attention is paid to intersecting forms of inequities related to gender, race, or social class). For the purpose of this scoping review, an HEO approach is a response that addresses health inequities in the context of the drug-related harms of stigma or overdose.

The focus of the scoping review is on mapping HEO approaches including strategies, action plans, programs, interventions, frameworks, lenses, and guides that inform responses for people who use substances. This review is unique in that included papers had to be *both* an HEO approach and include *at least one* of the following concepts: cultural safety, TVIC, or harm reduction. We also looked for papers that included an Indigenous-informed perspective in addition to any of the three concepts. These concepts are described in the introduction of this report and were used to inform our search strategy and analysis.

A conceptual framework or model can also provide guidance for action, so this has been included in our definition of an approach. For the purposes of this review, a framework is defined as a particular set of ideas or beliefs that form a conceptual structure to guide or support responses to, or the study of, health and social problems.

Context

The overall context for this review is the recent Canadian and global opioid overdose crisis. A global context was selected for this review to identify creative ideas that have been used in other countries as potential strategies for preventing the harms of stigma or overdose when people use illicit or street drugs, or use prescription opioids for other than their intended purpose.

Studies published between January 1, 2000, and July 31, 2019, were included because the context for the opioid overdose crisis has changed markedly over this time with the introduction of more potent and unpredictable opioids into the street or illicit drug market. The year 2000 was also selected because this date marks the time when work on cultural safety and harm reduction became prominent in the literature, followed later by increasing references to TVIC.

Types of sources

This review considered quantitative, qualitative, and mixed methods study designs. In addition, peer-reviewed health or social policy or discourse analysis papers, quality improvement and program evaluation, systematic reviews, and literature reviews were included. Text and opinion papers were included when they reported on an HEO framework and met the review objectives. These framework papers included documents from organizations, agencies, or governments, and were primarily located through searching the gray literature.

Methods

This review was conducted in accordance with JBI methodology for scoping reviews.⁵⁷ The title of this scoping review was registered with JBI, and an *a priori* protocol was published.²⁹

This research team has well-established and long-standing relationships with many community groups who work with people who use substances or are street-involved. Representatives of these community groups provided guidance for the development of this scoping review, provided feedback on the preliminary findings, and were involved in integrated knowledge translation activities.

Search strategy

The search strategy sought to find both published and unpublished studies. A three-step search strategy was used in this review. As described in the published protocol,²⁹ an initial limited search of MEDLINE and CINAHL was completed, followed by analysis of the text words contained in the title and abstract, and of the index terms used to describe articles. This informed the development of a search strategy, which was tailored for each information source.

Initial search terms included opioids and substance use (and related terms), along with stigma or overdose. Search terms for HEO approaches included health equity, social justice, decolonizing, Indigenous ways of knowing, critical theory, intersectionality, cultural safety, harm reduction, and trauma- and violence-informed care.

Due to the complexity of this review, two research librarians (CG and RR) provided guidance for the development of the literature search strategy, which involved a different strategy for the peer-reviewed and gray literature. A full search strategy for the major databases searched is detailed in Appendix I.

The reference lists of all included studies were screened for potential papers and forward citation tracking completed. Gray literature searching focused primarily on locating framework papers that met our inclusion criteria.

Only studies published in English were included in the review because time and resource constraints precluded the inclusion of papers and other resources written in other languages.

The databases searched included CINAHL (EBSCOhost), MEDLINE (Ovid), Academic Search Premier (EBSCOhost), PsycINFO (EBSCOhost), Sociological Abstracts (ProQuest), and Social Services Abstracts (ProQuest). The search for systematic reviews and trials in progress included the *JBI Database of Systematic Reviews and Implementation Reports*, Cochrane Database of Systematic Reviews, and PROSPERO.

The search for unpublished studies included ProQuest Dissertations and Theses, Google Scholar, targeted web searches (eg, DuckDuckGo, Google), and health-related gray literature sites (eg, GreyLit and OpenGrey) and organizations (eg, government websites, World Health Organization, Centre for Addiction and Mental Health, and the Canadian Centre on Substance Use and Addiction). For literature related to Indigenous people, the search also included the Aboriginal Health Abstract Database, First Nations Periodical Index, and the National Indigenous Studies Portal. Following the publication of the protocol,²⁹ some minor changes were made to the included databases: Social Services Abstracts database was included; however, Social Work Abstracts was discarded, because the only results it provided were already being selected from existing databases. Additionally, Embase was listed in the protocol but was not included in the final search as we no longer had access to this database.

Article selection

Following the search, all identified citations were collated and uploaded into EndNote v.X7 (Clarivate Analytics, PA, US) and duplicates removed. A minimum of two independent reviewers of a team of five, screened titles and abstracts for assessment against the inclusion criteria. The team met several times early in the process to ensure that all reviewers understood the inclusion and exclusion criteria. The full text of selected papers was retrieved and assessed against the inclusion criteria. Reviewer disagreements about

inclusion were resolved through discussion or with a third reviewer (KM). Citation details about the studies that met the inclusion criteria were imported into JBI System for the Unified Management, Assessment and Review of Information (JBI SUMARI; JBI, Adelaide, Australia).⁵⁸

Data extraction

Data were extracted from included papers by two independent reviewers, again from a team of five, using a modification of the standardized JBI data extraction tool developed for this scoping review and published in our protocol.²⁹ Data extracted included specific details about the population, concepts, context, and key findings or recommendations relevant to the review objectives. Disagreements that arose between the reviewers were resolved through discussion or with a third reviewer (KM). We did not need to contact authors for missing or additional information.

Data analysis and presentation

Extracted data are presented in diagrammatic or tabular form, and the findings are organized based on the objectives of the scoping review. A narrative summary accompanies the tabulated or charted results, and describes how the results relate to the review's objective and questions. For objective 1, tables that map the HEO concepts of cultural safety, harm reduction, and TVIC are included. Extracted data included key findings and recommendations relevant to the review objectives; thematic analysis of this data for all of the included studies and frameworks was conducted for objectives 2 and 3. The published protocol²⁹ did not specify that thematic analysis would be undertaken; however, given the number of included articles, it was determined that this was the most effective method for meeting the second and third objective of the scoping review. For objective 2, high-level recommendations for the development of a comprehensive framework are presented to inform research and equity-oriented responses to the drug-related harms of stigma or overdose. Objective 3 data are presented to include an overview of gaps in knowledge and areas for future research based on the thematic analysis.

Stakeholder feedback

A meeting with key stakeholders was held to present preliminary findings from the review, discuss

emerging recommendations, and obtain feedback. There were 26 participants at the meeting, which included academic researchers, research assistants and coordinators, project librarians, and knowledge users at the local, regional, and provincial level and representing provincial government, regional health authorities, Indigenous services and communities, non-profit service agencies, and people with lived experience. The overall feedback was that the recommendations and findings were comprehensive and generally aligned with the participants' own experiences and perspectives. In particular, participants were optimistic when noting that the focus of the recommendations was primarily about broader, structural, systemic changes and cultural shifts, as opposed to individual-level changes, which tend to dominate the literature and interventions for this population. Participants noted some limitations and knowledge gaps, which are covered in this review.

Results

Article inclusion

The results of the search are presented in a Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram (Figure 1).⁵⁹ A total of 1662 papers were identified through the systematic search of the six databases previously identified. Citation tracking yielded another 266 papers, with an additional 94 citations in ProQuest Dissertations and Theses. A further search of the gray literature for framework papers yielded 360 possible reports (see Appendix I for details).

After duplicates were removed, 1065 papers remained for screening. At this stage, 849 papers were excluded as not relevant to the review objectives based on the title and abstract; this included two papers that were excluded because the abstract could not be located.

Of the 216 articles retrieved for full-text review, 68 papers were excluded (Appendix II). The most common reason for exclusion was that the paper did not describe an HEO approach to guide policy or practice ($n = 31$; 45.6%). Seventeen textual opinion or gray literature papers were not framework papers and thus did not meet our inclusion criteria (25%). Eleven articles were excluded because they lacked at least one of the other required concepts (harm reduction, TVIC, or cultural safety). Eight further papers were excluded for not addressing the drug use–

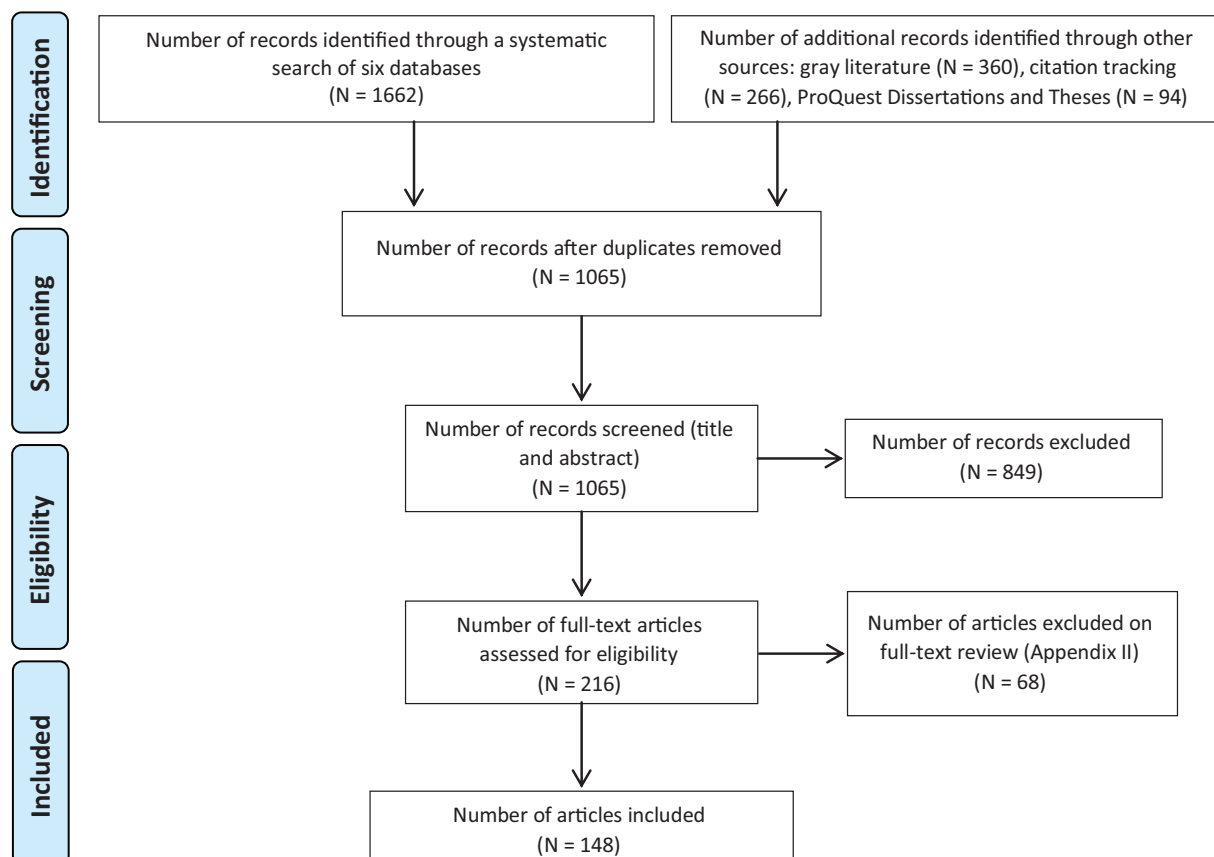


Figure 1: Search results and article selection and inclusion process⁵⁹

related harms of stigma or overdose. One paper was also excluded for not being available in English.

Characteristics of included articles

Details about the 148 articles included in this scoping review are provided in Appendix III. Articles are presented alphabetically by the first author's last name with full citations included in the reference list.^{18,22,24,39,44,60-202}

In the 10-year period between 2000 and 2009, 17 papers were published, representing 11.5% of our included articles. More papers ($n = 23$; 15.5%) were published in the following five-year period (2010 to 2014). The majority of papers ($n = 108$; 73%) were published in the final five years of the search period (2015 to 2019). Additional details are provided in Table 1.

Table 1 also displays the 148 included papers by HEO approach. As outlined in the inclusion criteria and published protocol,²⁹ included papers had to be *both* an HEO approach (a response that addresses health inequities in the context of the drug-related harms of stigma or overdose) and include *at least one* of the following concepts: cultural safety, TVIC, or harm reduction. We also looked for papers that included an Indigenous-informed perspective in addition to any of the three concepts, but papers that included only an Indigenous-informed perspective without one of the other concepts were not included.

More than one-half of these papers ($n = 85$; 57.4%) include one of harm reduction, cultural safety, or TVIC. Almost one-third ($n = 47$; 31.8%) had two of these approaches. Only 16 papers (10.8%) integrated all three of these HEO approaches. In

Table 1: Included articles by year(s) of publication and health-equity-oriented approach

Year of publication	N = 148
2000–2004	1
2005–2009 (10.8%)	16
2010–2014 (15.5%)	23
2015–2019 (73%)	108
• 2015	18
• 2016	18
• 2017	23
• 2018	35
• 2019 (7 months)	14
One HEO approach (57.4%)	n = 85
HR only	79
CS only	4
TVIC only	2
Two HEO approaches (31.8%)	n = 47
HR + CS	31
HR + TVIC	13
CS + TVIC	3
Three HEO approaches (10.8%)	n = 16
Also IIP	n = 14

CS, cultural safety; HEO, health-equity-oriented; HR, harm reduction; IIP, Indigenous-informed perspective; TVIC, trauma- and violence-informed care.

addition, an Indigenous perspective also informed 14 papers^{22,24,39,89,93,130,135,148,160,164-166,187,195}; 11 of these were from Canada and three were from the US.

The distribution of paper types by country is presented in Table 2. The following paper types were included: framework papers (primarily from the gray literature), literature reviews (including brief evidence summaries), policy and social analyses (including policy, discourse, ethical, and legal analyses), program reports (including program evaluation and implementation), and research reports (including qualitative, quantitative, and mixed methods).

Twenty-six framework papers were included: five from the US^{83,120-122,174} and the remaining 21 from Canada.^{73,84-87,89,99,101,102,117,147,148,157,158,164,169,170,179,184,185,189} Because frameworks were an important focus of this scoping review, additional details about the included framework papers can be found in Appendix IV.

As shown in Table 2, the 16 literature reviews were more evenly distributed. These reviews ranged from brief evidence summaries to two comprehensive commissioned reviews.^{94,133} No systematic reviews were identified for inclusion in this scoping review.

Fourteen policy and social analysis papers were included: seven of these were Canadian,^{22,82,118,146,155,156,182} and three had a more global

Table 2: Distribution of included papers by country and article type

Country	Framework papers	Literature reviews	Policy and social analyses	Program reports	Quantitative research	Mixed methods research	Qualitative research	Total
Canada	21	6	7	7		4	29	74
US	5	3	1	5	5	1	22	42
Global		3	3		1	1		8
UK		1	2	1		1	2	7
Aust./NZ		1			1		5	7
Europe/Russia		1	1				3	5
Kenya							2	2
Mid. East		1					1	2
SE Asia							1	1
Total	26	16	14	13	7	7	65	148

perspective.^{140,162,163} Nine social analysis papers included discourse, ethical, social, and legal analysis.^{22,82,155,156,167,171,177,182,194}

Thirteen program description and evaluation reports were included: seven from Canada,^{24,109,126,130,186,187,198} five from the US,^{64,77,127,128,183} and one from the United Kingdom.¹⁰⁴

Most of the research reports summarized studies that used qualitative approaches (n = 65; 44%). Of these, the majority did not specify the qualitative approach to data collection or analysis (n = 33) but included interviews, focus groups, and textual analysis. When a qualitative methodology was specified, 14 reported an ethnographic approach, 12 were community-based or participatory action research, three were Indigenous approaches, two were phenomenology, and one was ethnomethodology. The remaining 14 research reports were quantitative research^{115,129,136,168,173,190,201} and mixed methods studies^{65,111,150,152,160,193,200} that included surveys and observational studies.

The target populations for these various papers included people who use drugs, service providers, peer and non-peer educators, decision and policy makers. See Appendix III for more details about individual articles.

Review findings

We have organized the findings based on the objectives of this scoping review:

- i. Mapping the literature by HEO approach.
- ii. Identifying recommendations for integrating, implementing, or evaluating HEO approaches.
- iii. Describing the gaps in knowledge and areas for further research.

Mapping by health-equity-oriented approach

The first objective focused on mapping data related to the HEO approaches including cultural safety, TVIC, and harm reduction. Additionally, we looked at whether any papers also included an Indigenous-informed perspective, but this was not one of the specific inclusion criteria. This section of the report presents the analysis of the included studies looking at these HEO approaches in relation to the types of research or program evaluation. We also considered how well these approaches are reflected in the papers that included frameworks.

Table 3 presents HEO approaches by research method (qualitative n = 65, program reports n = 13, quantitative, n = 7, mixed methods n = 7). The majority (55/92; 59.8%) of research reports were characterized by one HEO approach, predominantly harm reduction. Roughly one-third (n = 31) had two HEO approaches; most of these were harm reduction and cultural safety. A small number of research reports (6/92; 6.5%) integrated all three of the HEO approaches.

These results contrast with the 26 framework papers (see Table 4), where eight papers (30.8%)

Table 3: Research methods by health-equity-oriented approach

HEO approach	Mixed methods	Qualitative research	Quantitative research	Program reports	Total
One HEO approach	7	35	5	8	55 (59.8%)
HR only	6	35	4	7	52
CS only			1	1	2
TVIC only	1				1
Two HEO approaches		25	2	4	31 (33.7%)
HR + CS		17	2	3	22
HR + TVIC		6		1	7
CS + TVIC		2			2
All three HEO approaches		5		1	6 (6.5%)
Total	7	65	7	13	92 (100%)

CS, cultural safety; HEO, health-equity-oriented; HR, harm reduction; TVIC, trauma- and violence-informed care.

Table 4: Framework papers by health-equity-oriented approach

HEO approach	N = 26	Citation numbers
One HEO approach	8 (30.8%)	
HR only	7	84, 86, 87, 120, 158, 184, 189
CS only	1	117
TVIC	-	
Two HEO approaches	11 (42.3%)	
HR + CS	3	89, 179, 185
HR + TVIC	7	64, 85, 121, 122, 147, 164, 174
CS + TVIC	1	148
All three HEO approaches	7 (26.9%)	73, 99, 101, 102, 157, 169, 170

CS, cultural safety; HEO, health-equity-oriented; HR, harm reduction; TVIC, trauma- and violence-informed care.

had one HEO approach,^{84,86,87,117,120,158,184,189} seven of which were harm reduction only and one was cultural safety.¹¹⁷ Eleven (42.3%) had two approaches in various combinations,^{64,85,89,121,122,147,148,164,174,179,185} with seven including harm reduction and TVIC,^{64,85,121,122,147,164,174} three including HR and CS,^{89,179,185} and only one including cultural safety and TVIC.¹⁴⁸ Seven (26.9%) integrated all three HEO approaches^{73,99,101,102,157,169,170}; this is more than a one-fourth of the framework papers compared with only 6.5% of research reports integrating all three HEO approaches. There were also three framework papers that included an Indigenous-informed perspective^{89,148,164} but no frameworks that included all three HEO approaches plus an Indigenous-informed perspective.

Recommendations for integrating, implementing, or evaluating health-equity-oriented approaches

The second review objective focused on identifying recommendations for integrating, implementing, or evaluating HEO approaches. Most articles included several recommendations that could inform HEO approaches, and all of these recommendations and key findings were documented for each article. Appendix IV lists the recommendations for each of the framework papers and gives an overview of the breadth of recommendations included in most of the papers. The research team has extensive experience with qualitative analysis, and two researchers

(HS and BP) inductively developed themes based on the recommendations pulled from each article. Some articles included as many as 10 recommendations across all of the HEO concepts,^{101,120,147,170,179,185} resulting in hundreds of recommendations across the 148 included studies and frameworks. Given that all of the included papers included at least one HEO concept, they are woven through the recommendations. The articles that included all HEO approaches often touched on many of the themes identified. Just as harm reduction was the dominant HEO approach in the articles, it was dominant in the themes.

Six high-level recommendations were identified by thematic analysis of all included studies and frameworks (Figure 2):

- i) **Inclusion of people with lived and living experience:** Central to HEO approaches is the meaningful inclusion of people with lived or living experience of substance use, often referred to as peers. In addition to being involved in all aspects of research as discussed previously, people with lived or living experience of substance use should be integral to the design, development, and delivery of overdose response strategies, policies, and harm reduction services. It is important to view people who use drugs as capable and informed, and value their knowledge while focusing on strengths and resilience.
- ii) **Multifaceted approaches to reduce stigma and discrimination:** There is a need for anti-stigma and anti-discriminatory policies, as well as

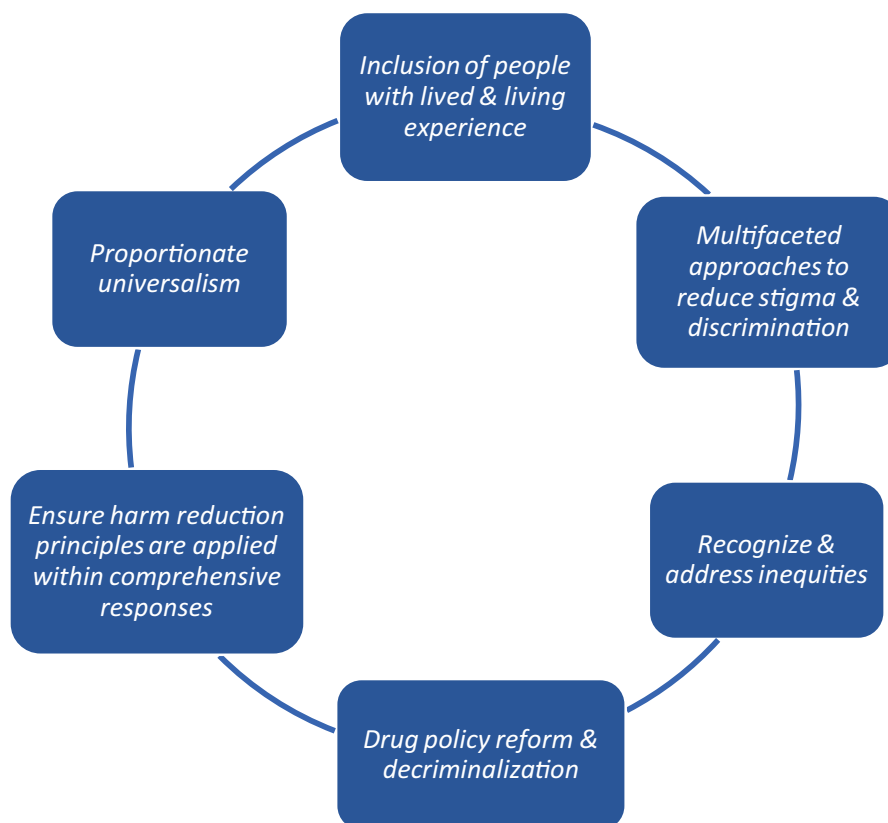


Figure 2: Key recommendations for integrating, implementing, or evaluating health-equity-oriented approaches for preventing and reducing the harms of stigma or overdose for people who use illicit drugs or misuse prescription opioids

training and campaigns aimed at health providers, police, educators, social system providers, decision-makers, and the general public. This includes promoting the use of non-stigmatizing language, and promoting positive media messages and images while questioning flawed media reporting that includes stereotypical representations of people who use illicit drugs.

- iii) **Recognize and address inequities:** It is essential to understand how a person's access to resources and social determinants of health (eg, housing, income, social support, health services) is impacted by structural determinants (eg, history, policies, economics, politics) and their social position (eg, age, sex/gender, race, ethnicity, social class, ability). There is a need to ameliorate, shift, or disrupt systemic harms at multiple levels; this includes attention to power,

privilege, disadvantage, and exclusion, as well as discriminatory laws and policies (ie, racism, colonialism, gender discrimination, sexism, ableism, and drug prohibition), which can be implicitly or explicitly present in policies and practices.

- iv) **Drug policy reform and decriminalization:** It is important to recognize the central role of drug policy and related stigma in creating harms to the health and well-being of all, and understanding how safer supplies of illicit substances would significantly decrease substance use harms and overdose deaths. Again, government policies, as well as the police and criminal justice systems, need to be assessed and modified to avoid harmful impacts.
- v) **Ensure harm reduction principles are applied within comprehensive responses:** Harm reduction principles focus on protecting people from

harms associated with obtaining, possessing, and using substances without the expectation of discontinued or reduced use, as well as building trust by treating people with respect, compassion, and dignity. Comprehensive HEO approaches integrate these harm reduction principles with a broad range of barrier-free, accessible primary and mental health services, as well as substance use treatment options.

- vi) **Proportionate universalism:** A targeted approach is an important strategy for reaching those who are experiencing the highest risk, but is limited in terms of reducing population-level inequities. Proportionate universalism recognizes the need to balance targeted and universal approaches through action proportionate to both needs and levels of disadvantage in a population. Priorities for programs and policies should be relative to need and must include a range of responses focused on systemic factors. This is counter to many current responses to stigma and overdose, which are often targeted to reach those most affected, without complementary universal responses that have reach across the population.

Gaps in knowledge and areas for future research

The third and final review objective was related to identifying gaps in knowledge and recommendations for future research. In addition to capturing key recommendations from each included study and framework, we also included gaps in knowledge and areas for future research in the data extraction tool. The data were then analyzed, again by two researchers (HS and BW), to inductively identify themes that emerged for directions for future research from the included studies and frameworks. This thematic analysis resulted in four areas for future research.

First, there is a need for more monitoring and surveillance of structural variables, as well as timely collection, analysis, and dissemination of overdose data. This includes identifying epidemiological trends among specific sub-populations (ie, youth, Indigenous people, sex workers, and transgender people), which would inform disproportionate rates of harms. There is significant variability even within sub-groups, and therefore a need to develop a full understanding of the complex and multidimensional needs of specific populations. As Goodman *et al.*³⁹

state, “It is this diversity that we must recognize as there is no singular Indigenous or Aboriginal experience. . . . experiences of being Aboriginal, impoverished, and a person who uses illicit substances intersect.”^(p.91)

Second, it is clear that diverse research methodologies are needed to capture the complexity of this issue, specifically, mixed methods from multiple disciplines that are able to identify both the quantitative and qualitative nuances to inform HEO approaches. For example, when referring to future research into inpatient supervised injection services, Sharma *et al.*¹⁷⁸ suggest, “Given the complex legal, cultural, economic, and epidemiological questions, a mixed qualitative and quantitative approach is important to fully explore such issues.”^(p.3) This also includes improved knowledge translation mechanisms to utilize data and research findings to effectively inform policies and practices that attend to inequitable health outcomes while explicitly situating them within their structural roots.

Third, research should be more responsive and inclusive of those impacted by it, namely, people who use drugs and those most impacted by current or past experience with substance use. As Boyd *et al.*⁷⁹ articulate, “representatives from drug user groups should be at the table as new harm reduction programs are envisioned and implemented so that the services meet the needs of those most affected. In addition, peers from drug user groups can support research participants, helping them to negotiate study information and consent forms.”^(p.12) Moreover, these individuals should be adequately compensated for their contributions to research and for sharing their knowledge and their lived experiences. Those most impacted by the research need to be at the center of any studies and ideally included as members of research teams.

Lastly, given that few studies integrated more than one HEO approach and that we did not discover any research that implemented or evaluated the impact of more than one of these three HEO approaches, more research and program evaluation that integrates two or more of these HEO approaches is warranted.

Discussion

To identify what is currently known about HEO approaches for preventing and reducing the harms of stigma and overdose for people who use illicit drugs

and as part of opioid overdose responses, we conducted this scoping review to systematically identify and map literature that uses an HEO approach that emphasizes cultural safety, TVIC, harm reduction, as well as Indigenous-informed perspectives. We found that most papers were published since 2015 and were from Canada and the United States. As our search included a focus on overdose, this could reflect the overdose crisis impacting North America. Within our conceptualization of HEO approaches, most of the articles included a focus on harm reduction. Overall, articles were characterized by one HEO approach, predominantly harm reduction, and there were few papers that included all three concepts (harm reduction, cultural safety, and TVIC). One interpretation could be that current research has not yet caught up with more complex ways of conceptualizing the relationships between health-equity concepts and the harms of stigma and overdose.

When looking specifically at the framework papers, we identified more responses integrating multiple HEO approaches with seven frameworks including all three HEO approaches. We interpreted this finding to indicate the potential for the public policy sector to develop and inform HEO approaches within public health, as well as other settings such as housing. It is worth noting, however, that we did not find any framework papers that included all three HEO approaches with the addition of an Indigenous-informed perspective. This may have been confounded by the fact that many people identify cultural safety as sufficient for inclusion of Indigenous perspectives; however, although cultural safety is an important approach for delivering safe, acceptable, and appropriate services, it falls short of meaningfully including Indigenous knowledge systems or explicit decolonizing goals.

Our search resulted in few articles informed by Indigenous perspectives or decolonizing approaches to preventing and reducing the harms of stigma and overdose for people who use illicit drugs or use prescription opioids for other than their intended purposes. We see this omission as a limitation but also an opportunity. Although the inequities experienced by Indigenous peoples are often cited, there is an under-representation of Indigenous perspectives and priorities within health-equity research and approaches⁵⁴ overall and including substance use specifically. The integration of culture as a social determinant of health within public health and

health equity is necessary.²⁰³ While principles of health equity are obvious within Indigenous-led and informed frameworks for health and well-being, there are greater opportunities for health-equity frameworks to be inclusive of Indigenous approaches. At the stakeholder forum held as part of this scoping review, participants recognized this limitation, emphasizing the significance of culture-based programs and interventions in response to substance use, notably for Indigenous people in treatment for substance use and addictions.^{204,205}

Equity is dependent on decolonization. Indigenous harm reduction recognizes the need to reduce the harms of colonization and the systemic social and health inequities sustained by neo-colonial practices and systems.⁵⁶ Cultural safety within responses to substance use and overdose at the practice level can encompass self-determination for Indigenous people who use drugs, and at the community and policy levels, centering community wellness and the revitalization of Indigenous knowledge and traditions.²⁰⁶ Trauma- and violence-informed care is inclusive of responses to the intergenerational and ongoing trauma of colonization, the police-inflicted violence experienced by Indigenous people who use drugs, and the stigmatization from health professionals among others.²³ Decriminalization and decolonization are inseparable as the war on drugs enacts racialized violence. Reconciliation requires inclusion of Indigenous people in drug law reformation, and reparations of the harms of criminalization and incarceration of generations of Indigenous people as part of the war on drugs.⁵⁵

Our aim was to map the field of HEO approaches that integrate three concepts: harm reduction, cultural safety, and TVIC. This scoping review therefore identified a knowledge gap in HEO approaches that address harms of stigma and overdose, because the vast majority of the literature does not integrate all of these concepts. Additionally, many of the included articles were not explicit in the application of the HEO approaches; rather, harm reduction, cultural safety, and TVIC approaches were often implied, notably when focused on specific communities or populations in which cultural safety or trauma is perhaps assumed. Our review produced six recommendations for integrating, implementing, or evaluating HEO approaches that emerged from the thematic analysis of recommendations of all included studies.

Our findings suggest that much work is needed to integrate cultural safety, TVIC, and harm reduction in the context of substance use and to inform equity-oriented responses to stigma and overdose. We propose that an HEO framework should be a universal approach with cultural safety, TVIC, and harm reduction, as well as a decolonizing lens, appropriately applied and implemented at multi-levels from public policy making, community, social networks, organizations, intrapersonally, and individually. A targeted approach is an important strategy for reaching those who are experiencing the highest risk, but is limited in terms of reducing population-level inequities. How HEO responses are arranged and delivered matters and should be tailored to be responsive both to individuals and local contexts, as well as intersecting forms of social marginalization. To promote equity and reduce the harms and risks of overdose across the social gradient, approaches in keeping with proportionate universalism are needed. Health-equity-oriented approaches need to be contextually tailored to the unique communities and individuals, with attention to the sociopolitical contexts through meaningful engagement of groups and communities in the development of responses.

Limitations of the review

There are some limitations to our scoping review that are worth noting. First, limiting our search strategy to English may have contributed to missing important contributions written in other languages. For example, Portugal has made important strides to decrease the harms of substance use by decriminalizing drug possession, while investing in health and social programs.²⁰⁷

Secondly, there was a predominance of articles and frameworks with a harm reduction focus and a lack of articles with Indigenous perspectives. We interpreted the predominance of harm reduction literature as a reflection of funding priorities and driven by the HIV epidemic that preceded the current overdose epidemic. Moreover, the focus of the review on stigma and overdose may have excluded more holistic and wellness-oriented Indigenous approaches that are not “disease” specific, but remain important contributions to preventing stigma and overdose.

Finally, we did not assess the quality of the evidence summarized given that this was a scoping

review as opposed to a systematic review. The themes identified under the second objective, related to recommendations for integrating, implementing, or evaluating HEO approaches, were identified from a thematic analysis based on the researchers’ interpretation of key recommendations and should be interpreted with caution. Our goal was to provide breadth rather than depth of evidence. These methods were appropriate for this review given that our main objective was to map the literature and identify potential frameworks in this area.

Conclusions

Although health equity has been a global public health priority for more than a decade, significant inequities persist in relation to the harms of stigma, overdose, and substance use. Health-equity approaches that integrate TVIC, harm reduction, and cultural safety, with a decolonizing lens and attention to local contexts, are indicated. Despite this, our scoping review identified few conceptual frameworks that are both HEO and include more than one additional concept that could enrich and contextualize responses to promote equitable health outcomes among people who use substances. There were even fewer examples of research that implemented or evaluated such a comprehensive framework. If progress is to be made, it is imperative that research and responses attend to the intersecting and complex structural and systems-level roots of inequitable outcomes beyond strictly individual-level responses. In the context of an opioid poisoning emergency, important features of HEO responses include the following: the inclusion of people with lived and living experience, multifaceted approaches to reduce stigma and discrimination, recognizing and addressing inequities, drug policy reform and decriminalization, applying harm reduction principles within comprehensive responses, and adopting proportionate universalism. More research is required to identify appropriate equity-oriented indicators to measure and evaluate the impact of these integrated frameworks for action.

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Appendix I: Search strategy

- The database searches are a combination of keyword and controlled vocabulary terms to provide the most comprehensive coverage.
- The default key word search in the EBSCOhost databases includes Title, Abstract, and Subject fields.
- The NOFT keyword search in ProQuest databases searches anywhere except full-text.
- The Ovid MEDLINE codes are captured in the search and a combination of keyword and MeSH terms have been used to provide comprehensive coverage.

CINAHL (EBSCOhost)

January 1, 2000–July 31, 2019

Date searched: August 15, 2019.

#	Query	Limiters/expanders	Last run via	Records retrieved
S1	(MH "narcotics+ ") OR (fentanyl OR heroin OR meperidine OR morphine OR opium OR oxycodone OR propoxyphene OR sufentanil OR tramadol OR opioid* OR opiate* OR "street drug*" OR narcotic* OR "designer drug*" OR "Synthetic Cannabinoid*" OR vicodin OR hydrocodone OR oxymorphone OR percocet OR percodan OR oxycontin OR dilaudid OR hydromorphone OR carfentanil OR W-18 or "illicit drug*" OR prescription misuse)	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	74,353
S2	(MH overdose) OR overdos*	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	10,137
S3	(MH stigma) OR stigma	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	20,412
S4	S2 OR S3	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	30,433
S5	S1 AND S4	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	5466
S6	(MH "Harm Reduction") or "harm reduction"	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	5117
S7	(MH "Cultural Safety") OR "cultural* safe*"	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	958

(Continued)				
#	Query	Limiters/expanders	Last run via	Records retrieved
S8	"supervised inject*" OR "needle exchange*" OR "syringe exchange*" OR "needle distribution" OR "substitution therap*" OR "substitution treatment" OR naloxone OR "overdose revers*" OR "supervised consum*" OR "risk reduction*" OR "harm minimiz*" OR "risk minimiz*" OR "safe* inject*" OR outreach OR "enabling place*" OR "enabling space*" OR methadone OR "synthetic cannabinoid*" OR "peer group*" OR "peer work*" OR "peer support*" OR "peer counsel*" OR "peer engage*" OR "peer administer*" OR "injection room*" OR "drug room*" OR suboxone OR "opioid detox*" OR "trauma informed" OR "violence informed"	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	48,917
S9	S6 OR S7 OR S8	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	53,808
S10	(MH "Health Status Disparities") OR (MH "Healthcare Disparities") OR ("health* equit*" OR "health care equit*" OR "health* disparit*" OR "health care disparit*" OR "health* inequit*" OR "health care inequit*" OR "health* inequal*" OR "social justice" OR "equity oriented" OR "inequity responsive")	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	34,157
S11	(MH "social determinants of health") OR "social determinant*"	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	7561
S12	(MH "socioeconomic factors") OR socio-economic OR socioeconomic	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	103,773
S13	(MH sexism) OR sexism	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	4215
S14	(MH racism) OR racism	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	6896

<i>(Continued)</i>				
#	Query	Limiters/expanders	Last run via	Records retrieved
S15	marginal* OR stigma* OR vulnerab* OR intersection* OR decoloni* OR coloniz*	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	97,902
S16	(MH "critical theory") OR "critical theory"	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	598
S17	(S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16)	Search modes - Find	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	231,289
S18	S5 AND S9 AND S17	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	338
S19	S5 AND S9 AND S17	Limiters - Published Date: 20000101- 20190731 Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Complete	273

APA PsycINFO (EBSCOhost)

January 1, 2000–July 31, 2019

Date searched: August 15, 2019.

#	Query	Limiters/expanders	Last run via	Records retrieved
S1	DE "Opiates" OR DE "Buprenorphine" OR DE "Codeine" OR DE "Endogenous Opi- ates" OR DE "Fentanyl" OR DE "Heroin" OR DE "Morphine" OR DE "Papaverine" OR fentanyl OR heroin OR meperidine OR morphine OR opium OR oxycodone OR propoxyphene OR sufentanil OR tramadol OR opioid* OR opiate* OR "street drug*" OR narcotic* OR "designer drug*" OR "Synthetic Cannabinoid*" OR vicodin OR hydrocodone OR oxymor- phone OR percocet OR percodan OR oxycontin OR dilaudid OR hydromor- phone OR carfentanil OR W-18 or "illicit drug*" OR prescription misuse	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database – APA PsycINFO	59,018

<i>(Continued)</i>				
#	Query	Limiters/expanders	Last run via	Records retrieved
S2	(DE "Drug overdoses") OR overdos*	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycINFO	5015
S3	(DE stigma) OR stigma	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycINFO	25,648
S4	S2 OR S3	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycINFO	30,593
S5	S1 AND S4	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycINFO	2787
S6	DE "Harm Reduction" or "harm reduction" OR DE "Needle Exchange Programs" OR "cultural* safe*" OR "supervised inject*" OR "needle exchange*" OR "syringe exchange*" OR "needle distribution" OR "substitution therapy" OR "substitution treatment" OR naloxone OR "overdose revers*" OR "supervised consum*" OR "risk reduction*" OR "harm minimiz*" OR "risk minimiz*" OR "safe* inject*" OR outreach OR "enabling place*" OR "enabling space*" OR methadone OR "synthetic cannabinoid*" OR "peer group*" OR "peer work*" OR "peer support*" OR "peer counsel*" OR "peer engage*" OR "peer administer*" OR "injection room" OR "drug room" OR suboxone OR "opioid detox*" OR "trauma informed" OR "violence informed"	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycINFO	64,281

<i>(Continued)</i>				
#	Query	Limiters/expanders	Last run via	Records retrieved
S7	DE "Health Disparities" OR "health* equit*" OR "health care equit*" OR "health* disparit*" OR "health care disparit*" OR "health* inequit*" OR "health care inequit*" OR "health* inequal*" OR "social justice" OR "equity oriented" OR "inequity respon- sive" OR contextually tailored OR "crit- ical theor*" OR intersection* OR decolonni* OR coloniz* OR marginal* OR stigma* OR vulnerab* or "social determinant*"	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycINFO	177,717
S8	DE "socioeconomic status" OR socio-economic OR socioeconomic	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycINFO	94,975
S9	DE sexism OR sexism	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycINFO	4593
S10	DE racism OR racism	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycINFO	13,867
S11	S7 OR S8 OR S9 OR S10	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycINFO	191,530
S12	S5 AND S6 AND S11	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - APA PsycINFO	251
S13	S5 AND S6 AND S11	Limiters - Published Date: 20000101– 20190731 Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database – APA PsycINFO	227

Academic Search Premier (EBSCOhost)

January 1, 2000–July 31, 2019

Date searched: August 15, 2019.

#	Query	Limiters/expanders	Last run via	Records retrieved
S1	DE "NARCOTICS" OR DE "ACET-AMINOPHEN-hydrocodone (Drug)" OR DE "BHANG (Drug)" OR DE "CHLORAL" OR DE "COCAINE" OR DE "CODEINE" OR DE "DIPHENOXYLATE" OR DE "FENTANYL" OR DE "HASHISH" OR DE "HEROIN" OR DE "HYDROCODONE" OR DE "ISONIPECAINE" OR DE "LACTUCARIUM" OR DE "METHADYL acetate" OR DE "MORPHINE" OR DE "NARCOTIC agonists" OR DE "NARCOTIC analgesics" OR DE "NARCOTIC antagonists" OR DE "OPIUM" OR DE "OXYCODONE" OR DE "PROPOXYPHENE (Drug)" OR DE "SUFENTANIL" OR DE "THEBAINE" OR DE "TRAMADOL (Drug)" OR fentanyl OR heroin OR meperidine OR morphine OR opium OR oxycodone OR propoxyphene OR sufentanil OR tramadol OR opioid* OR opiate* OR "street drug*" OR narcotic* OR "designer drug*" OR "Synthetic Cannabinoid*" OR vicodin OR hydrocodone OR oxymorphone OR percocet OR percodan OR oxycontin OR dilaudid OR hydromorphone OR carfentanil OR W-18 or "illicit drug*" OR prescription misuse	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - Academic Search Premier	146,225
S2	SU "Drug Overdose" OR overdos*	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - Academic Search Premier	19,988
S3	SU Stigma OR stigma	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - Academic Search Premier	27,988

<i>(Continued)</i>				
#	Query	Limiters/expanders	Last run via	Records retrieved
S4	S2 OR S3	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - Academic Search Premier	47,862
S5	S1 AND S4	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database Academic Search Premier	7205
S6	SU "Harm Reduction" or "harm reduction" OR SU "Needle Exchange Programs" OR "cultural* safe*" OR "supervised inject*" OR "needle exchang*" OR "syringe exchang*" OR "needle distribution" OR "substitution therap*" OR "substitution treatment*" OR naloxone OR "overdose revers*" OR "supervised consum*" OR "risk reduction*" OR "harm minimiz*" OR "risk minimiz*" OR "safe* inject*" OR outreach OR "enabling place*" OR "enabling space*" OR methadone OR "synthetic cannabinoid*" OR "peer group*" OR "peer work*" OR "peer support*" OR "peer counsel*" OR "peer engage*" OR "peer administer*" OR "injection room*" OR "drug room*" OR suboxone OR "opioid detox*" OR "trauma informed" OR "violence informed"	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - Academic Search Premier	85,792

<i>(Continued)</i>				
#	Query	Limiters/expanders	Last run via	Records retrieved
S7	"health* equit*" OR "health care equit*" OR "health* disparit*" OR "health care disparit*" OR "health* inequit*" OR "health care inequit*" OR "health* inequal*" OR "social justice" OR "equity oriented" OR "inequity responsive" OR contextually tailored OR "critical theor*" OR intersection* OR decoloni* OR coloniz* OR marginal* OR stigma* OR vulnerab* or "social determinant*"	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - Academic Search Premier	465,291
S8	SU "socioeconomic factors" OR socio-economic OR socioeconomic	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - Academic Search Premier	139,125
S9	SU sexism OR sexism	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - Academic Search Premier	7667
S10	SU racism OR racism	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - Academic Search Premier	41,171
S11	S7 OR S9 OR S10	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - Academic Search Premier	508,089
S12	S5 AND S6 AND S11	Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - Academic Search Premier	340
S13	S5 AND S6 AND S11	Limiters - Publication Date: 20000101–20190731 Search modes - Find all my search terms	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - Academic Search Premier	319

MEDLINE (Ovid)

2000–2019

Date searched: August 12, 2019.

#	Search	Records retrieved
1	narcotics.mp. or exp Narcotics/	125,470
2	fentanyl.mp. or exp Fentanyl/	22,180
3	exp Heroin Dependence/ or exp Heroin/ or heroin.mp.	17,666
4	meperidine.mp. or exp Meperidine/	6706
5	exp Morphine Dependence/ or morphine.mp. or exp Morphine/ or exp Morphine Derivatives/	64,633
6	exp Opium Dependence/ or exp Opium/ or opium.mp.	2959
7	oxycodone.mp. or exp Oxycodone/	3397
8	propoxyphene.mp. or exp Dextropropoxyphene/	1726
9	sufentanil.mp. or exp Sufentanil/	2612
10	tramadol.mp. or exp Tramadol/	4491
11	opioid.mp. or exp Analgesics, Opioid/	152,931
12	exp Opiate Alkaloids/ or opiate*.mp.	99,266
13	exp Substance-Related Disorders/ or street drug*.mp. or exp Opioid-Related Disorders/ or exp Illicit Drugs/	279,808
14	street drug*.mp.	593
15	narcotic*.mp. or Narcotic-Related Disorders/	59,433
16	exp Designer Drugs/ or designer drug*.mp.	2279
17	synthetic cannabinoid*.mp.	1783
18	vicodin.mp. or exp Hydrocodone/	640
19	oxymorphone.mp. or exp Oxymorphone/	727
20	percocet.mp.	56
21	percodan.mp.	14
22	oxycontin.mp.	223
23	dilaudid.mp.	66
24	hydromorphone.mp. or exp Hydromorphone/	1902
25	carfentanil.mp.	304
26	w-18.mp.	84
27	exp Prescription Drug Misuse/ or prescription misuse.mp.	13,029
28	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27	453,344
29	exp Drug Overdose/ or overdose.mp.	19,939

<i>(Continued)</i>		
#	Search	Records retrieved
30	(overdosed or overdosing or overdoses).mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	4061
31	29 or 30	21,932
32	exp Social Stigma/ or stigma.mp.	19,893
33	stigmati*.mp.	8275
34	32 or 33	24,796
35	31 or 34	46,655
36	28 and 35	16,011
37	harm reduction.mp. or exp Harm Reduction/	5242
38	Culturally Competent Care/ or cultural safety.mp.	1635
39	cultural* safe*.mp.	474
40	38 or 39	1794
41	exp Harm Reduction/ or supervised inject*.mp. or exp Substance Abuse Treatment Centers/ or exp Needle-Exchange Programs/	9532
42	needle exchang*.mp.	2111
43	syringe exchang*.mp.	634
44	needle distribution.mp.	26
45	"substitution therap*".mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	2169
46	exp Opiate Substitution Treatment/ or "substitution treatment*".mp.	3475
47	exp Naloxone/ or exp Buprenorphine, Naloxone Drug Combination/ or naloxone.mp.	31,975
48	"overdose revers*".mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	61
49	"supervised consum*".mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	51
50	risk reduction*.mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	27,432
51	risk reduction.mp.	26,722

<i>(Continued)</i>		
#	Search	Records retrieved
52	"harm minimi*".mp.	296
53	"risk minimi*".mp.	372
54	"safe* inject*".mp.	510
55	safe injection.mp.	237
56	outreach.mp.	11,239
57	"enabling place*".mp.	12
58	"enabling space*".mp.	7
59	methadone.mp. or exp Methadone/	15,367
60	"synthetic cannabinoid".mp.	1063
61	exp Peer Group/ or peer group*.mp.	21,874
62	peer work*.mp.	128
63	peer support*.mp. or exp Social Support/	72,033
64	peer counsel*.mp.	471
65	"peer engage*".mp.	35
66	peer administer*.mp.	13
67	injection room*.mp.	24
68	drug room*.mp.	7
69	suboxone.mp. or exp Buprenorphine, Naloxone Drug Combination/	343
70	exp Opiate Substitution Treatment/ or exp Methadone/ or opioid detox*.mp.	13,627
71	trauma informed.mp.	650
72	violence informed.mp.	15
73	41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 or 66 or 67 or 68 or 69 or 70 or 71 or 72	187,145
74	37 or 40 or 73	190,377
75	health status disparities.mp. or exp Health Status Disparities/	15,124
76	healthcare disparities.mp. or exp Healthcare Disparities/	16,582
77	exp health-equity/ or "health* equit*".mp. or exp Healthcare Disparities/	18,566
78	health care disparit*.mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	1050
79	health care inequit*.mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	67

<i>(Continued)</i>		
#	Search	Records retrieved
80	health disparit*.mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	9468
81	health care equit*.mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	58
82	health* inequit*.mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	1552
83	health* inequal*.mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	4751
84	social justice.mp. or exp Social Justice/	12,960
85	equity oriented.mp.	87
86	inequity responsive.mp.	2
87	75 or 76 or 77 or 78 or 79 or 80 or 81 or 82 or 83 or 84 or 85 or 86	51,845
88	exp "Social Determinants of Health"/	2859
89	social determinants of health.mp.	5162
90	social determinant*.mp.	7170
91	88 or 89 or 90	7170
92	socio-economic factors.mp. or exp Socioeconomic Factors/	447,637
93	(socio-economic or socioeconomic).mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	216,177
94	92 or 93	486,804
95	sexism.mp. or exp Sexism/ or exp Prejudice/	29,655
96	racism.mp. or exp Racism/	4298
97	marginal*.mp.	92,216
98	exp Social Stigma/ or stigma*.mp.	30,637
99	exp Vulnerable Populations/ or vulnerab*.mp.	114,482
100	intersection*.mp.	11,796

<i>(Continued)</i>		
#	Search	Records retrieved
101	decoloni*.mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	1041
102	coloniz*.mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	71,744
103	97 or 98 or 99 or 100 or 101 or 102	316,560
104	critical theory.mp. [mp = title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	213
105	87 or 91 or 94 or 95 or 96 or 103 or 104	831,702
106	36 and 74 and 105	722
107	limit 106 to (English language and yr = "2000 - 2019")	665

Sociological Abstracts and Social Services Abstracts (ProQuest)

2000–2019

Date searched: August 15, 2019.

(NOFT(stigma OR overdos*) OR MAINSUBJECT.EXACT.EXPLODE("Stigma"))

AND NOFT(health-equity OR health disparities OR "equity oriented" OR "inequity responsive" OR "contextually tailored" OR "critical theory" OR intersect* OR postcoloni* OR marginal* OR stigma* OR vulnerab* OR "social determinants" OR socioeconomic OR colonialism OR colonization OR decoloni*)

AND (MAINSUBJECT.EXACT.EXPLODE("Harm Reduction") OR MAINSUBJECT.EXACT("Needle Exchange Programs") OR NOFT(supervised injection OR needle exchange OR syringe exchange OR needle distribution OR substitution therapy OR substitution treatment OR naloxone OR overdose reversal OR supervised consumption OR risk reduction OR harm minimization OR risk minimization OR safe* injection OR outreach OR enabling place OR enabling space OR methadone OR peer* OR injection room OR drug room OR suboxone OR opioid detoxification OR trauma informed OR violence informed OR cultural safety OR harm reduction))

AND (NOFT(fentanyl OR heroin OR oxycodone OR opioid* OR opiates OR "street drugs" OR narcotic* OR "designer drugs" OR "illicit drugs" OR "substance abuse" OR "drug abuse" OR "substance use") OR MAINSUBJECT.EXACT.EXPLODE("Narcotic Drugs"))

AND (la.exact("ENG") AND pd(20000101–20190731)) = 178 results

Dissertations and Theses A&I (ProQuest)

2000–2019

Date searched: August 15, 2019.

(noft(overdos* OR stigma)

AND NOFT(fentanyl OR heroin OR oxycodone OR opioid* OR opiates OR “street drugs” OR narcotic* OR “designer drugs” OR “illicit drugs” OR “substance abuse” OR “drug abuse” OR “substance use”)

AND NOFT(supervised injection OR needle exchange OR syringe exchange OR needle distribution OR substitution therapy OR substitution treatment OR naloxone OR overdose reversal OR supervised consumption OR risk reduction OR harm minimization OR risk minimization OR safe* injection OR outreach OR enabling place OR enabling space OR methadone OR peer* OR injection room OR drug room OR suboxone OR opioid detoxification OR trauma informed OR violence informed OR cultural safety OR harm reduction)

AND NOFT(health-equity OR health disparities OR “equity oriented” OR “inequity responsive” OR “contextually tailored” OR “critical theory” OR intersect* OR postcoloni* OR marginal* OR stigma* OR vulnerab* OR “social determinants” OR socioeconomic OR colonialism OR colonization OR decoloni*)

AND (la.exact(“ENG”) AND pd(20000101–20190731)) = 94 results

Gray Literature

2000–2019

A gray literature search strategy was developed incorporating gray literature databases as well as Google, Google Scholar, and DuckDuckGo search engines, and governmental and non-governmental organization websites. We searched keywords based on those found in our database search strategies (eg, opioids, stigma, cultural safety, health-equity, frameworks). The searches were iterative, as is typical for gray literature searching, and we limited the searches to English-language items only published between 2000 and 2019. A full list of sites searched is appended below:

Theses and dissertations

Dissertations and Theses (ProQuest)

Theses Canada Portal

OAIster

Search engines

DuckDuckGo

Google Scholar

Google

Policy documents

DesLibris (Canadian public policy and includes the Canadian Health Research Collection)

Canadian Drug Policy Coalition: <http://drugpolicy.ca>International Drug Policy Consortium: <https://idpc.net>**Gray literature search engines**Grey Literature Report: <http://greylit.org>OpenGrey: <http://opengrey.eu>

NGOs/think tanks (worldwide)

World Health Organization: <http://www.who.int/>

Organisation for Economic Co-operation and Development: <http://www.oecd.org/health/>

Canadian Centre on Substance Use and Addiction: <https://www.ccsa.ca/>

United Nations: <http://www.unodc.org>

Pew Research Center: <http://www.pewresearch.org/>

Rand Corporation: <https://www.rand.org/>

National Harm Reduction Coalition: <http://harmreduction.org>

Robert Wood Johnson Foundation: <https://www.rwjf.org/>

Bill and Melinda Gates Foundation: <https://www.gatesfoundation.org/>

Government websites (regional, provincial, and federal) for Canada, USA, Australia, New Zealand, and Europe

Health Canada: <https://www.canada.ca/en/health-canada.html>

Indigenous Health: <https://www.canada.ca/en/services/health/aboriginal-health.html>

Health Authority Websites across Canadian provinces and territories (and First Nations Health Authorities)

Centre for Addiction and Mental Health: <https://www.camh.ca/>

First Nations/Indian/Maori, etc. association websites

Aboriginal Health Abstract Database

National Indigenous Studies Portal

Miscellaneous sources

Trip database: <https://www.tripdatabase.com/>

Centre of Excellence for Women's Health: <http://bccewh.bc.ca/>

Canadian Institute for Health Information: <https://www.cihi.ca/en>

Canadian Agency for Drugs and Technologies in Health: <https://cadth.ca/>

Public Health Agencies worldwide (including Canada)

Canadian Institute for Substance Use Research: <https://www.uvic.ca/research/centres/cisur/>

Center on Addiction: <https://www.centeronaddiction.org/>

Substance Abuse and Mental Health Services Administration: <https://www.samhsa.gov/>

Appendix II: Studies ineligible following full-text review

Reason for exclusion: not a health-equity-oriented approach to guide policy or practice; N = 31

Alexandrescu LG. Injecting ATS/NPS use and drug abjection in Romania. *Drugs Alcohol Today*. 2016;16(2):142–9.

Allman D, Myers T, Schellenberg J, Strike C, Cockerill R, Cavalieri W. Peer networking for the reduction of drug-related harm. *Int J Drug Policy*. 2006;17(5):402–10.

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Ashford RD, Brown AM, Dorney G, McConnell N, Kunzelman J, McDaniel J, et al. Reducing harm and promoting recovery through community-based mutual aid: characterizing those who engage in a hybrid peer recovery community organization. *Addict Behav*. 2019;98:1–8.

Barcal K, Schumacher JE, Dumchev K, Moroz LV. A situational picture of HIV/AIDS and injection drug use in Vinnitsya, Ukraine. *Harm Reduct J*. 2005;2(1):1–11.

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Bartoszek A. The lethal burden of survival. *Contemp Drug Probl*. 2018;45(3):208–26.

Belackova V, Tomkova A, Zabransky T. Qualitative research in Spanish cannabis social clubs: “the moment you enter the door, you are minimising the risks.” *Int J Drug Policy*. 2016;34:49–57.

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Reason for exclusion: not a framework paper (text and opinion source; N = 17)

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- Collins AB, Bardwell G, McNeil R, Boyd J. Gender and the overdose crisis in North America: moving past gender-neutral approaches in the public health response. *Int J Drug Policy*. 2019;69:43–5.
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Reason for exclusion: does not use other lenses or approaches (harm reduction, trauma- and violence-informed care, or cultural safety; N = 11)

Antoniou T, Ala-Leppilampi K, Shearer D, Parsons JA, Tadrous M, Gomes T. “Like being put on an ice floe and shoved away”: a qualitative study of the impacts of opioid-related policy changes on people who take opioids. *Int J Drug Policy.* 2019;66:15–22.

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Reason for exclusion: does not address drug use–related harms of stigma or overdose (N = 8)

Abou-Hamde Y, Hopfgartner A. The case for a student run clinic in London. *Univ West Ont Med J*. 2018;87(1):28–30.

Barocas JA, Brennan MB, Hull SJ, Stokes S, Fangman JJ, Westergaard RP. Barriers and facilitators of hepatitis C screening among people who inject drugs: a multi-city, mixed-methods study. *Harm Reduct J*. 2014;11(1):1–8.

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Culbert GJ, Pillai V, Bick J, Al-Darraji HA, Wickersham JA, Wegman MP, *et al*. Confronting the HIV, tuberculosis, addiction, and incarceration syndemic in Southeast Asia: lessons learned from Malaysia. *J Neuroimmune Pharmacol*. 2016;11(3):446–55.

Guerrero EG, Garner BR, Cook B, Kong Y. Does the implementation of evidence-based and culturally competent practices reduce disparities in addiction treatment outcomes? *Addict Behav*. 2017;73:119–23.

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Hasnain M. Cultural approach to HIV/AIDS harm reduction in Muslim countries. *Harm Reduct J*. 2005;2(1):1–8.

McCall J, Lauridsen-Hoegh P. Trauma and cultural safety: providing quality care to HIV-infected women of Aboriginal descent. *J Assoc Nurses AIDS Care*. 2014;25(8):S70–78.

Reason for exclusion: not available in English (Greek; N = 1)

Golna C, Malliori M, Tsironi M, Souliotis K, Lionis C. Alternative systems for the provision of pharmacologically assisted treatment of opioid dependence: from strict control to care in the community and primary health care. *Arch Iatr Hetaireon*. 2014;31:25–34.

Appendix III: Characteristics of included studies (n = 148)

Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Alam-mehrjerdi Z, et al. (2016) ⁶⁰ Middle East (Persian Gulf region)	Literature review and prevalence report	To review published studies and reports on the prevalence of opioid use and the availability of opioid treatment and harm reduction services.	Audience: service providers, policy makers, and researchers 9 countries in the Persian Gulf region	HR
Allen ST, et al. (2019) ⁶¹ USA (West Virginia)	Qualitative research (semi-structured interviews with constant comparison analysis)	To explore the public health implications of the suspension of a rural syringe services program.	PWUD (n = 27) Rural context	HR
Andraka-Christou B, Capone MJ (2018) ⁶² USA (4 States)	Qualitative research (interviews/thematic analysis)	To compare physician-reported barriers to sublingual buprenorphine and extended-release naltrexone.	Service providers (physicians; n = 20) Office-based settings	HR
Anstice S, et al. (2009) ⁶³ Canada (Ontario)	Qualitative research (interviews/thematic analysis)	To explore clients' experiences of a supervised methadone consumption program in community settings.	PWUD (n = 64) From four community-located programs	HR, CS CS not explicit
Armitage EV, et al. (2010) ⁶⁴ USA (Portland)	Program evaluation (Case study over 12 years with many participants)	To describe the development and evaluation of a Peer Recovery Program based on a 12-step approach.	PWUD (seeking or in recovery)	HR
Ataiants J (2019) ⁶⁵ USA (Pennsylvania) [dissertation]	Mixed methods (interviews triangulated with data on overdose, violence and poly-substance use)	To study women's overdose experiences with a focus on how gender shapes overdose risks and responses.	PWUD (women; n = 42) Largely street-involved women who approached harm-reduction services	HR
Ayon S, et al. (2018) ⁶⁶ Kenya	Qualitative research (interviews/focus groups thematic analysis)	To explore the experiences of women regarding their access to HIV, HR, and sexual and reproductive health services.	PWUD (women; n = 45) who were provided access to HIV, HR, and sexual and reproductive health services	HR

(Continued)				
Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Azores-Gococo, NM, Fridberg DJ (2017) ⁶⁷ <i>Canada</i>	Evidence summary	To review the evidence-base for three widely implemented harm reduction strategies: needle and syringe exchange, MAT, and HIV testing/counseling.	Audience: health care providers (physicians) and researchers	HR
Bardwell G, et al. (2018) ⁶⁸ <i>Canada (Vancouver)</i>	Qualitative research: ethnographic	To examine how physical, social, and structural contexts influenced injection drug use and overdose risks.	PWUD Two emergency shelters implementing a peer-based supervised injection service	HR
Bardwell G, et al. (2017) ⁶⁹ <i>Canada (BC)</i>	Evidence summary	To review literature that describes supervised consumption and overdose prevention sites.	Audience: programs for PWUD and are unstably housed Context includes social housing	HR, CS
Barry CL (2018) ⁷⁰ <i>USA</i>	Evidence summary	To review harm-reduction strategies including safe drug consumption sites, drug-checking services, harm reduction-oriented policing, MAT, and stigma-reducing messaging.	Audience: policy makers	HR
Bartlett R, et al. (2013) ⁷¹ <i>USA</i>	Literature review (with knowledge translation continuing education module)	To review addiction science and harm-reduction principles and strategies to identify ways that nurses can provide care for PWUD.	Audience: PWUD and service providers (nurses)	HR
Batchelder AW, et al. (2017) ⁷² <i>USA (The Bronx)</i>	Qualitative research: (program evaluation) interviews/thematic analysis)	To explore the perceptions of participants and peer educators involved in an HCV peer program.	PWUD (non-peer and peer educators)	HR
BC Women's Hospital (2019) ⁷³ <i>Canada</i>	Framework paper Guiding principles model	To ensure best care and supports to pregnant/parenting women (PWUD).	Audience: service providers (health care)	HR, CS, TVIC

(Continued)				
Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Belle-Isle L (2016) ⁷⁴ <i>Canada (Victoria)</i> [Dissertation]	Qualitative research: CBR or PAR (Critical emancipatory inquiry)	To understand how power inequities are transformed when PWUD participate in policy, service delivery, and research committees.	PWUD and decision makers	HR, CS CS implied but not explicit
Bennett AS, et al. (2017) ⁷⁵ <i>USA (New York City)</i>	Qualitative research (semi-structured interviews with constant comparison analysis)	To explore the proximal behavioral precipitants of overdose events and the physiological, psychological, and sociological influences.	PWUD (male veterans) who had experienced at least one opioid-related overdose	HR
Benoit C, et al. (2014) ⁷⁶ <i>Canada (Victoria)</i>	Qualitative research (Interviews with analysis guided by a critical perspective)	To understand providers conceptualizations of problematic substance use during pregnancy and early parenting.	Service providers who work with women who use drugs during pregnancy and early parenting (n = 56)	HR, CS
Bernstein E, et al. (2017) ⁷⁷ <i>USA (Boston)</i>	Program review (over a 23-year period)	To describe project ASSERT and the development of this program over time including collaborative partnerships.	Program level descriptive data are provided	HR, CS Mentions trauma
Blake D (2018) ⁷⁸ <i>New Zealand (Aotearoa)</i>	Qualitative research: ethnographic (interviews, interpretive analysis)	To explore access to opioid substitution treatment as part of a larger study on disaster planning.	Service providers (n = 22) and PWUD (opioid substitution treatment clients, n = 21)	HR, TVIC SDoH framework
Boyd J, et al. (2018) ¹⁸ <i>Canada (Vancouver)</i>	Qualitative research: ethnographic (observations, interviews) Intersectionality lens	To explore how overlapping epidemics of overdose and gendered violence impacts marginalized women's experiences of opioid substitution treatment.	PWUD (women; n = 35)	HR, CS CS implied but not explicit

(Continued)				
Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Boyd S, et al. (2017) ⁷⁹ Canada (Vancouver)	Qualitative research: CBR or PAR	To represent the voices of PWUD, the importance of heroin-assisted treatment, and problems with clinical trials without an exit strategy for ongoing treatment.	PWUD and have participated in two clinical trials of heroin-assisted treatment and are part of a peer-run advocacy group	HR, CS
Bozinoff N, et al. (2017) ⁸⁰ Canada (Vancouver)	Qualitative research: ethnographic (semi-structured interviews with thematic analysis)	To explore participants' understanding of harm reduction, their use of specific services, and their ideas about improving their everyday lives.	PWUD (street-involved youth; n = 13)	HR
Bucciari K (2010) ⁸¹ Canada (Ottawa)	Qualitative research (semi-structured interviews with thematic analysis)	To compare the views about harm reduction between youth and service providers.	PWUD (youth; n = 9) and service providers (n = 10) Recruited from a service for street-involved people	HR
Buchman DZ, et al. (2018) ⁸² Canada (Toronto)	Ethical analysis (overdose education and naloxone distribution programs)	To consider the ethical strengths and limitations of task shifting programs that use lay people to deliver opioid resuscitation.	Audience: public health professionals and policy makers	HR
Campaign for Trauma-informed Policy and Practice (2017) ⁸³ USA	Framework (policy brief with evidence review)	To make visible the role of adverse childhood experiences on PWUD.	Audience: policy makers	HR, TVIC
Canadian Mental Health Association, Ontario (2017) ⁸⁴ Canada (Ontario)	Framework paper (incorporates a HEO model in a framework for action)	To embed equity in service-delivery planning by addressing equity issues in mental health.	Audience: service providers, decision-makers, and policy makers	HR Intersecting SDoH
Canadian Mental Health Association, Ontario (2018) ⁸⁵ Canada (Ontario)	Framework paper (incorporates an HEO model)	To equip community service providers with current, accessible, and relevant information to inform and develop an opioid overdose and response protocol.	Audience: service providers (community focus)	HR, TVIC Intersecting SDoH

(Continued)				
Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Canadian Nurses Association (2017) ⁸⁶ <i>Canada</i>	Principles of HR framework	To present current information about harm reduction for discussion.	Audience: nurses (policy, practice, research, and education)	HR
Carter C, Graham B (2013) ⁸⁷ <i>Canada</i>	Framework paper (Policy brief with five key action components)	To discuss the multi-jurisdictional policy barriers that hinder scale-up of opioid prevention and treatment initiatives.	Audience: policy makers	HR
Cepeda JA, et al. (2015) ⁸⁸ <i>Russia (St. Petersburg)</i>	Qualitative research (semi-structured interviews with thematic analysis)	To explore the challenges that formerly incarcerated PWUD face in relation to re-entry, relapse, and overdose.	PWUD (who have been in prison within the previous two years; n = 25) Recruited from street outreach and a drug treatment center	HR
Collins AB, et al. (2019) ⁸⁹ <i>Canada</i>	Intersectional risk environment framework	To introduce a relational intersectional lens to guide future research and orient structural interventions.	Audience: researchers and policy makers	HR, CS, IIP
Collins AB, et al. (2016) ⁹⁰ <i>Canada (Vancouver)</i>	Qualitative research: CBR or PAR (part of a mixed methods longitudinal study)	To examine the influence of territorial stigma (related to place of residence) on access to HIV care and other services.	PWUD (and live with HIV; n = 30) Recruited from an HIV care facility	HR
Conner KO, Rosen D (2008) ⁹¹ <i>USA (Pittsburgh)</i>	Qualitative research (semi-structured interviews with thematic analysis)	To examine the experiences of stigma in older adults enrolled in an MMT.	PWUD (older adults; n = 24)	HR
Conner KO, et al. (2010) ⁹² <i>USA (Pittsburgh)</i>	Qualitative research interviews and thematic analysis	To examine older adults' preferences for a drug counselor when on MMT.	PWUD (on MMT; n = 24)	HR, CS CS implied but not explicit

(Continued)				
Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Crabtree A (2015) ⁹³ <i>Canada (Vancouver)</i> [Dissertation]	Qualitative research: CBR or PAR Harm reduction and health promotion perspective	Reports on 17 workshops facilitated by drug users to identify health and harm-reduction priorities and 14 town hall meetings with illicit drinkers.	PWUD PWU illicit alcohol	CS, HR IIP
Csete J, et al. (2016) ⁹⁴ <i>Global</i>	Literature review (comprehensive, global review; six panels)	To examine emerging scientific evidence arising from drug-control policy and to inform and encourage the use of public health evidence in drug policy debates.	Audience: policy makers	HR, CS, TVIC
Dassieu L, et al. (2019) ⁹⁵ <i>Canada (Montreal)</i>	Qualitative research (semi-structured interviews with thematic analysis)	To explore how PWUD describe their experiences with chronic non-cancer pain management.	PWUD (n = 25) men and women	HR
Davidson PJ, et al. (2018) ⁹⁶ <i>USA (California)</i>	Qualitative research: ethnographic (observations, interviews, and thematic analysis)	To examine the impacts of having access to an “underground” supervised injection facility and explore how the illegal status of the site affects the utility of the space for PWUD.	PWUD (n = 22) plus one staff member A supervised injection facility in the US without legal status	HR
Dell CA, Kilty JM (2013) ²² <i>Canada</i>	Discourse analysis (based on a large national study of the experiences of Indigenous women who use drugs)	To disrupt social stereotyping of the expected Aboriginal woman drug offender by exploring links between victimization and criminalization.	PWUD (Indigenous women; n = 85)	TVIC IIP
Dickson-Gómez JB, et al. (2004) ⁹⁷ <i>USA (Baltimore)</i>	Qualitative research Pre and post intervention interviews	To report on the experiences of PWUD who were trained to conduct peer HIV outreach education.	PWUD (African American; n = 44)	HR, CS CS implied but not explicit

(Continued)				
Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Dwyer R, <i>et al.</i> (2016) ⁹⁸ <i>Australia (Victoria)</i>	Qualitative research (semi-structured interviews with content analysis)	To investigate the experiences of service providers regarding provision of take-home nalox- one to PWUD.	Service providers (n = 15)	HR
EQUIP Health Care (2018) ⁹⁹ <i>Canada (Vancouver)</i>	Framework paper Includes a HEO framework for substance use in context	To provide a tool for primary health care organization and providers working with PWUD.	Audience: service providers and program decision makers	HR, TVIC, CS
Eversman MH (2015) ¹⁰⁰ <i>USA (North East)</i>	Qualitative research Semi-structured interviews	To explore service providers' perceptions of harm-reduction programs.	Service providers (African American communities; n = 21) Urban context	HR, CS CS implied but not explicit
Expert Working Group on Narcotic Addiction (2012) ¹⁰¹ <i>Canada</i>	Change framework (with guiding principles)	To provide a new model of stewardship for prescription narcotics use in Ontario.	Audience: policy and decision makers	CS, HR, TVIC
First Nations Health Authority (2019) ¹⁰² <i>Canada (Vancouver)</i>	Framework paper (action framework)	To provide a framework for action focused on overdose preventing deaths while also supporting broader goals of mental health and wellness.	Audience: policy and decision makers working with First Nations people	CS, TVIC, HR
Frank D, <i>et al.</i> (2015) ¹⁰³ <i>USA (New York City)</i>	Qualitative research (semi-structured interviews with constant comparison analysis)	To describe the overdose- related knowledge and experi- ences of young adults who use non-prescription opioids.	PWUD (young adults; n = 46)	HR
Gaston RL, <i>et al.</i> (2009) ¹⁰⁴ <i>UK (Birmingham and London)</i>	Program evaluation: six-month follow-up of a training program (telephone interviews)	To assess the effectiveness of training clients in overdose awareness and response by testing knowledge retention and use six months after the intervention.	PWUD (n = 46) of 70 PWUD that received training (and a preloaded syringe to take home) six months earlier	HR

(Continued)				
Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Ghaddar A, <i>et al.</i> (2017) ¹⁰⁵ <i>Lebanon</i>	Qualitative research (field tests, interviews, and focus groups)	To describe barriers to access to sterile syringes for PWUD from the perspectives of pharmacists and injection drug users.	PWUD (n = 17, 2 focus groups) and service providers (pharmacists; n = 74)	HR
Goodman A, <i>et al.</i> (2017) ³⁹ <i>Canada (Vancouver)</i>	Qualitative research: Indigenous approaches (talking circle, community validation of themes)	To explore health care experiences of Aboriginal people who use drugs or illicit alcohol.	PWUD (Indigenous; n = 30)	HR, CS IIP
Gowan T, <i>et al.</i> (2012) ¹⁰⁶ <i>USA (Minneapolis)</i>	Qualitative research: ethnographic (field work, interviews, and discourse analysis)	To describe and analyze the practice of harm reduction in a heroin users' group.	PWUD and service providers (n = 45)	HR
Greenspan NR, <i>et al.</i> (2011) ¹⁰⁷ <i>Canada (Toronto)</i>	Qualitative research (semi-structured interviews with thematic analysis)	To identify the self-directed harm-reduction strategies of substance-using gay or bisexual men from ethno-racially diverse backgrounds.	PWUD (gay or bisexual men; n = 43)	HR
Greer AM, <i>et al.</i> (2019) ¹⁰⁸ <i>Canada (BC)</i>	Qualitative research: CBR or PAR 13 peer-facilitated focus groups, themes about the nature of engagement	To examine the perspectives of PWUD on peer engagement in health and harm reduction.	PWUD (or have used drugs; n = 83) from across the province of BC	HR
Greer A, <i>et al.</i> (2016) ¹⁰⁹ <i>Canada (BC)</i>	Program evaluation: case study (meeting notes and surveys) Process evaluation	To describe and evaluate the peer engagement efforts in provincial harm reduction strategies and services.	PWUD and peers	HR, CS
Gunn A, Guarino H (2016) ¹¹⁰ <i>USA (New York City)</i>	Qualitative research (interviews and thematic analysis)	To explore the perceptions and experiences of stigma among opioid-using young adults from the former Soviet Union who are living in the US.	PWUD (young adults and mothers of PWUD [former Soviet Union immigrants]) and service providers familiar with this population	HR

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Hammett TM, <i>et al.</i> (2014) ¹¹¹ <i>Multiple (USA, Russia, Vietnam, China, Canada, Mexico)</i>	Mixed methods research (multi-site feasibility study using a multi-level framework for analysis)	To assess current pharmacy services, the potential for their expansion, and the facilitators of and barriers to expanded health services in pharmacies.	PWUD and service providers Synthesizes research from the USA, Russia, Vietnam, China, Canada, and Mexico	HR
Harris M, <i>et al.</i> (2015) ¹¹² <i>UK (London)</i>	Qualitative research (longitudinal life history interviews and narrative interviews)	To explore the impact of, and response to, the 2010/11 heroin shortage among London-based PWUD.	PWUD (n = 37) Most (36) were interviewed twice	HR
Harris RE, <i>et al.</i> (2018) ¹¹³ <i>USA (Philadelphia)</i>	Qualitative research: ethnographic (free listing exercise, semi-structured interviews)	To explore whether PWUD believe that supervised injection facilities would improve the prevention and treatment of injection-related problems.	PWUD (n = 19) Recruited from a syringe exchange program	HR
Hatcher AE, <i>et al.</i> (2018) ¹¹⁴ <i>USA (New York)</i>	Qualitative research (intersectional analysis) Critical race theory	To explore how people with differing identities and social locations experience office-based buprenorphine maintenance therapy differently.	PWUD taking buprenorphine maintenance therapy (n = 77) Primary care clinic	CS, TVIC Implied but not explicit
Heimer R, <i>et al.</i> (2014) ¹¹⁵ <i>USA (Connecticut)</i>	Quantitative research: longitudinal survey Epidemiological data collected annually	To understand the influence of suburban residence and community disadvantage on risk and injection-associated diseases.	PWUD (n = 454)	HR
Howard H (2016) ¹¹⁶ <i>USA (Boston)</i>	Qualitative research: phenomenology (critical feminist lens) Interviews and focus groups	To understand the lived experiences of pregnant and postpartum women who use drugs.	PWUD (post-partum women; N = 20) Focus on decision-making	HR

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Hunting G, <i>et al.</i> (2015) ¹¹⁷ Canada	Framework intersectionality-informed model of social inclusion and exclusion	To address the complexities of discrimination, stigma, and social inclusion in relation to mental health and substance use.	Audience: policy makers and service providers	CS
Hyshka E, <i>et al.</i> (2017) ¹¹⁸ Canada	Policy analysis (includes a harm reduction framework for evaluating policy)	To examine provincial and territorial policy frameworks to describe the quality of policies relative to their HR communicative function.	Audience: PWUD, policy makers, service providers	HR
Islam MM, <i>et al.</i> (2010) ¹¹⁹ Australia and New Zealand	Evidence summary	To discuss the pros and cons of mainstreaming HR approaches and the barriers to achieving this goal.	Audience: policy makers, service providers	HR
Johns Hopkins Bloomberg School of Public Health (2018) ¹²⁰ USA	Framework Policing and the opioid crisis	To review promising models for policing and share 10 standards of care.	Audience: policy and decision makers, service providers	HR
Johnson E (2019) ¹²¹ USA	Framework (with evidence review)	To share a care model for pregnant women who use drugs that integrates prenatal care, medication-assisted treatment, and behavioral health services delivered in a trauma-informed environment.	Audience: service providers	CS, HR, TVIC
Joudrey PJ, <i>et al.</i> (2019) ¹²² USA	Framework: post-release overdose risk for PWUD (people released from prison)	To present a heuristic model of post-release opioid-related overdose risk.	Audience: policy makers and researchers	CS, HR, TVIC

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Jozaghi E, <i>et al.</i> (2018) ¹²³ <i>Canada (Vancouver)</i>	Literature review (peer-reviewed studies, theses, books, and reports)	To examine 20 years of written reports that have been directed, influenced, and shaped by members of the activist organization Vancouver Area Network of Drug Users.	Audience: PWUD, service provi- ders, policy makers, and researchers	HR
Kapur S (2016) ¹²⁴ <i>Canada (Vancouver)</i> [Thesis]	Qualitative research: phenomenology	To understand the experience of direct service providers working within innovative environments.	Service providers working in community-based harm- reduction organizations serving PWUD	CS, HR, TVIC
Kenny KS, Barrington C (2018) ¹²⁵ <i>Canada (Toronto)</i>	Qualitative research Interviews and thematic analysis	To describe women's social relationships and social support in the period following child removal by child protective services.	PWUD (mothers involved with child protection services; n = 19)	CS, HR, TVIC
Kerr T, <i>et al.</i> (2017) ¹²⁶ <i>Canada</i>	Program review Evidence-based analysis	To review the development of supervised injection facility to enhance the impact of this intervention.	PWUD, policy makers, service providers	HR
Krawczyk N, <i>et al.</i> (2019) ¹²⁷ <i>USA (Baltimore)</i>	Program evaluation (includes initial usage statistics and referral patterns)	To describe the development of a low-threshold buprenor- phine treatment program.	PWUD (recently released from prison) Mobile van parked outside the city jail	HR, TVIC
Krawczyk N, <i>et al.</i> (2018) ¹²⁸ <i>USA (Baltimore)</i>	Program review (interviews and focus groups with thematic analysis)	To describe the process of developing the curriculum for a new peer-recovery program called AIM (Ability, Inspiration, Motivation).	PWUD and service providers	HR

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Lander LR, <i>et al.</i> (2016) ¹²⁹ USA (West Virginia)	Quantitative study Measured satisfaction and outcomes	To present preliminary outcomes for an interdisciplinary group-based model of medication-assisted treatment delivery.	PWUD (pregnant women; n = 45)	HR
Landry M, <i>et al.</i> (2016) ¹³⁰ Canada (New Brunswick)	Program evaluation: qualitative Focus groups with three groups of people	To determine the perceptions of members of a First Nations community about an MMT.	PWUD (on MMT) Service providers Community members	HR IIP
Laupland KB, Embil JM (2012) ¹³¹ Canada	Evidence summary	To review evidence on harm reduction programs, focusing on supervised injection facilities and Insite supervised injection site.	Audience: service providers (physicians)	HR
Lawrence-Jones J (2010) ¹³² UK (Southampton)	Qualitative research Interviews and thematic analysis of narratives	To gain insight into the experiences of people living with a dual diagnosis of substance use and mental illness.	Service providers (n = 6)	HR
Luchenski S, <i>et al.</i> (2018) ¹³³ UK	Literature review Comprehensive (three panels)	To synthesize evidence about health and social interventions for inclusion of people who experience homelessness, drug use, imprisonment, and sex work.	Audience: PWUD, Service providers, policy makers, and researchers	HR, CS
Lunze K, <i>et al.</i> (2015) ¹³⁴ Russia	Qualitative research: ethnographic (interviews with thematic analysis)	To characterize the phenomenon of police involvement with PWUD in Russia.	PWUD and service providers (includes police; n = 23) Context: Russia	HR
Marsh TN, <i>et al.</i> (2016) ¹³⁵ Canada (Northern Ontario)	Qualitative research: Indigenous approaches (sharing circles, interviews, and thematic analysis)	To explore whether blending Indigenous healing practices and a Western Seeking Safety Model will result in a decrease in inter-generational trauma symptoms and substance use.	PWUD (Indigenous; n = 24) Seeking Safety Model is designed to treat post-traumatic stress disorder	CS, TVIC IIP

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Mateu-Gelabert P, <i>et al.</i> (2018) ¹³⁶ <i>Global (USA, Colombia, Russia)</i>	Quantitative research: network analysis	To assess young adult drug users' connections with others at risk for HIV/HCV in three cities/countries.	PWUD (young adults): New York City (n = 539), Pereira, Colombia (n = 50), St. Petersburg, Russia (n = 49)	HR
Mburu GAS, <i>et al.</i> (2018) ¹³⁷ <i>Kenya</i>	Qualitative research (interviews, focus groups with thematic analysis)	To explore the needs and social contexts of women who inject drugs in two towns of Coastal Kenya.	PWUD (women; n = 45) Service providers (n = 5)	HR
McCall J, Pauly B (2019) ¹³⁸ <i>Canada (BC)</i>	Qualitative research: PAR and ethnographic (observations and interviews)	To examine the perspectives of PWUD about their feelings of safety in the hospital setting. Also interested in nurses' perspectives.	PWUD (n = 15) and service providers (nurses; n = 19) Urban acute care hospital	CS, HR, TVIC
McCall J, <i>et al.</i> (2017) ¹³⁹ <i>Canada</i>	Qualitative research: CBR or PAR (project description)	To describe the Cultural Safety in Nursing Practice Project and how knowledge brokers were central to more equitable processes within CBR.	Audience: PWUD, service providers (nurses) and researchers	HR, CS
McCann E, Temenos C (2015) ¹⁴⁰ <i>Multiple (Canada and USA)</i>	Policy analysis focused on drug consumption rooms	To examine how successful models of HR are translated across diverse cities within a global network of HR advocates.	Audience: PWUD, policy makers and service providers	HR
McKenzie HA, <i>et al.</i> (2016) ²⁴ <i>Canada</i>	Literature review Focused on Indigenous people in Canada	To review recent research about addictions among Indigenous people in Canada but also draws on literature from countries with similar settler-colonial histories.	Audience: PWUD (Indigenous), service providers, and policy makers Context: 2013–2016	CS IIP

(Continued)				
Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
McKnight C, Des Jarlais DC (2018) ¹⁴¹ <i>USA (New York City)</i>	Qualitative research (semi-structured interviews with thematic analysis)	To explore PWUD's adaptations to drug using practices resulting from fentanyl in the drug supply.	PWUD (n = 55) From three syringe-service programs	HR
McNeil R, et al. (2015) ¹⁴² <i>Canada (Vancouver)</i>	Qualitative research: ethnographic (observations, interviews) Analysis with risk environment framework	To explore how a supervised smoking room impacted crack smoking and exposure to harm (including social violence).	PWUD (who smoke crack; n = 23)	HR, CS
McNeil R, et al. (2016) ¹⁴³ <i>Canada (Vancouver)</i>	Qualitative research: ethnographic (observations, interviews) Analysis with risk environment framework	To explore the perspectives of PWUD about the potential integration of harm-reduction approaches into hospitals.	PWUD discharged from hospital against medical advice (n = 30)	HR, TVIC
Mitchell K, et al. (2017) ¹⁴⁴ <i>Canada (Vancouver)</i>	Qualitative research: CBR or PAR (interviews, focus groups with thematic analysis)	To examine the experiences of street-involved PWUD.	PWUD (street-involved young adults; n = 11) From an inner city youth program	HR
Morgan K, et al. (2015) ¹⁴⁵ <i>Australia (Eastern)</i>	Qualitative research: ethnomethodology (observations and recorded interactions)	To understand the role peer workers play as members of clinical primary health care teams.	PWUD and service providers (community health workers) 13 recorded interactions with two community health workers	HR
Morin KA, et al. (2017) ¹⁴⁶ <i>Canada</i>	Policy analysis	To discuss how narratives and social discourse have had more influence on the development of opioid policies than research.	Audience: PWUD, policy makers and service providers	HR
Nathoo T, et al. (2018) ¹⁴⁷ <i>Canada</i>	Trauma-informed Practice Framework (organized by four principles)	To guide discussion about how becoming trauma-informed can assist service providers.	Audience: service providers who work with PWUD	HR, TVIC

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Nutton J, Fast E (2015) ¹⁴⁸ <i>Canada</i>	Indigenous framework Historical trauma	To share a schematic model of the transmission of trauma across generations and potential protective factors.	Audience: Indigenous people	CS, TVIC IIP
Nyamathi AS, et al. (2007) ¹⁴⁹ <i>USA (Los Angeles)</i>	Qualitative research: CBR or PAR (first phase of a mixed methods study) Focus groups	To understand the barriers and facilitators to help seeking for substance use and general health care treatment.	PWUD adults attending a methadone maintenance facility (n = 41), the majority of PWUD also used alcohol	HR, CS
O'Leary B, et al. (2018) ¹⁵⁰ <i>Canada (Toronto and Vancouver)</i>	Mixed methods research: surveys (rating scales and open-ended questions)	To explore health care workers' perspectives about providing harm-reduction programming for people living with HIV.	Service providers (frontline health care workers; n = 64) Two HIV/AIDS facilities (Toronto and Vancouver)	HR
Paivinen H, Bade S (2008) ¹⁵¹ <i>Canada (Kamloops)</i>	Project review: provides a description of Project Voice, a feminist project	To amplify the voices of women who use drugs by providing opportunities for artistic/aesthetic expression.	Includes poetry and art work done by PWUD (women) Small town in BC interior	HR, CS, TVIC
Pan SW, et al. (2013) ¹⁵² <i>Canada (BC)</i>	Mixed methods: prospective cohort study (regression models and thematic analysis)	To describe the policing experiences of young Indigenous PWUD.	PWUD (Indigenous; n = 372; Cedar Project) Two BC communities (large city and small town in northern BC)	HR
Paquette CE, et al. (2018) ¹⁵³ <i>USA (California)</i>	Qualitative research (interviews with thematic analysis)	To explore the experience of stigma among PWUD to reveal how stigma influences health care access and utilization.	PWUD (n = 46)	HR
Pauly B (2008) ¹⁵⁴ <i>Canada</i>	Qualitative research: ethnographic Ethical analysis of observations and interviews	To report findings related to working with PWUD who experience homelessness from a larger study of ethical practice in nursing.	Nurses as collaborators. Two primary health care clinics and one emergency room	HR, TVIC TVIC implied but not explicit

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Pauly B (2008) ¹⁵⁵ Canada	Ethical analysis	To examine how the underlying values of harm reduction and different conceptions of justice can provide a foundation for action.	Audience: PWUD, policy makers and service providers	HR
Pauly B, et al. (2007) ¹⁵⁶ Canada	Ethical, legal, social analysis of HR	To assist nurses to provide safe, competent, and ethical care by examining the ethical, legal, and social context of HR related to substance use.	Audience: health professionals (nurses)	HR
Pauly B, et al. (2017) ¹⁵⁷ Canada (BC)	Framework: community overdose response plan	To present four key elements of a comprehensive overdose response and describe a process for implementation.	Audience: service providers, policy makers, and PWUD	HR, CS, TVIC
Pauly B, et al. (2015) ⁴⁴ Canada (BC)	Qualitative research: ethnographic	To gain understanding of what constitutes culturally safe care for PWUD in a hospital setting.	PWUD (n = 15) and service providers (nurses; n = 19) Two medical units of a large urban hospital	HR, CS, TVIC
Pauly B, et al. (2013) ¹⁵⁸ Canada	Framework: for integration of housing and harm-reduction policy	To examine Housing First as an example of the integration of housing and harm reduction and discuss a community-level policy framework for action.	Audience: PWUD, policy makers, and service providers	HR
Pauly B, et al. (2018) ¹⁵⁹ Canada (Victoria)	Qualitative research: CBR or PAR	To explore how programs with transitional housing where abstinence was not required respond to and manage substance use.	PWUD (n = 16) and service providers (n = 13) Two transitional housing programs	HR

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Pearce ME, <i>et al.</i> (2008) ¹⁶⁰ <i>Canada (BC)</i>	Mixed methods: prospective cohort study Measured sexual abuse, historical trauma, and health outcomes	To explore if a history of sexual abuse makes an independent contribution to HIV-related vulnerabilities and other health outcomes including substance use.	PWUD (Indigenous youth) Two groups: sexually abused and never sexually abused	TVIC IIP Postcolonial
Perlman DC, Jordan AE (2018) ¹⁶¹ <i>USA (New York)</i>	Literature review	To consider opioid misuse, overdose, HCV, and HIV as a syndemic and the importance of examining and addressing structural factors.	Audience: public health professionals, policy makers, and researchers	HR
Perlman DC, <i>et al.</i> (2015) ¹⁶² <i>Multiple (USA, Estonia, Vietnam)</i>	Policy analysis	To discuss considerations for using opioid substitution treatment as a platform to improve HCV prevention and care at program, policy, and structural levels.	Audience: policy makers, public health professionals	HR
Pinkham S, Malinowska-Sempruch K (2008) ¹⁶³ <i>Global</i>	Policy analysis (with evidence review)	To examine how gender-related factors can increase the vulnerability of women who use drugs and decrease their access to harm reduction, drug treatment, and sexual and reproductive health services.	Audience: policy makers and health service providers	HR, TVIC TVIC implied but not explicit
Province of Nova Scotia (2017) ¹⁶⁴ <i>Canada (Nova Scotia)</i>	Wellness framework (key areas include engagement, prevention, treatment, and criminal justice)	To outline keys areas of focus for responding to problematic opioid use and overdose in Nova Scotia.	Audience: stakeholders (harm reduction organizations), service providers, and communities	HR, TVIC IIP
Radin SM, <i>et al.</i> (2015) ¹⁶⁵ <i>USA (Washington State)</i>	Qualitative research: CBR or PAR (interviews and focus groups)	To learn about community members' concerns about drug and alcohol use in four tribal communities.	Indigenous community members	HR, CS, TVIC IIP

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Rasmus S, <i>et al.</i> (2016) ¹⁶⁶ USA (Washington State)	Qualitative research: CBR or PAR	To increase understanding of Coast Salish strengths and identify factors that protect against and facilitate recovery.	Indigenous peer supporters (62 adults from three communities)	HR IIP (Strengths-focused)
Rhodes T (2009) ¹⁶⁷ UK	Discourse analysis (theoretical perspectives of risk environments)	To understand how individuals and environments affect the production and reduction of drug harms.	Audience: PWUD, policy makers, and service providers	HR
Rigg KK, <i>et al.</i> (2018) ¹⁶⁸ USA	Quantitative: (epidemiological data from two large national sources)	To summarize existing literature on opioid-related mortality in rural America.	Population-level data about heterogeneous rural communities	HR, CS CS not explicit
Registered Nurses' Association of Ontario (2015) ¹⁶⁹ Canada (Toronto)	Framework paper Best practice guideline includes a review of relevant HEO frameworks	To help nurses become more comfortable, confident, and competent caring for clients who use substances.	Audience: service providers (nurses)	HR, CS, TVIC
Registered Nurses' Association of Ontario (2018) ¹⁷⁰ Canada (Toronto)	Framework (supervised injection sites) Best practice guidelines	To develop a guideline on the most effective approaches for supervised injection sites delivery to PWUD. Ultimately to promote health equity for PWUD.	Audience: health workers (nurses) and decision makers	HR, CS, TVIC
Room R (2005) ¹⁷¹ Multiple (Sweden, Finland)	Discourse analysis (with literature review)	To discuss stigma and marginalization in relation to substance use and how these are affected by social location.	Audience: policy makers and service providers	HR
Roux P, <i>et al.</i> (2015) ¹⁷² France	Evidence summary	To review the evidence that supports increasing access to opioid agonist treatment in primary care in France.	Audience: policy makers and service providers	HR

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Rowe C, <i>et al.</i> (2016) ¹⁷³ USA (San Francisco)	Quantitative: (epidemiological data with multivariate analysis)	To investigate the neighbor- hood-level correlates and spatial relationships of lay naloxone distribution and utilization and opioid overdose deaths.	PWUD (data on overdose deaths and naloxone reversals)	HR
Saloner B, <i>et al.</i> (2018) ¹⁷⁴ USA	Ecological public health framework	To present an ecological frame- work that provides guidance for improving public health and clinical practice.	Audience: policy makers	HR, TVIC
Sarang A, <i>et al.</i> (2010) ¹⁷⁵ Russia (three cities)	Qualitative research Interviews	To explore accounts of PWUD about drug use, HIV, and health risks and access to health services.	PWUD (n = 209)	HR, CS CS not explicit
Sarang A, <i>et al.</i> (2007) ¹⁷⁶ Europe, Central Asia	Literature review	To review the implementation of harm-reduction interventions in Central and Eastern Europe and Central Asia.	Audience: public health profes- sionals, policy makers, and researchers	HR, CS
Scheibe L (2017) ¹⁷⁷ UK	Discourse analysis (with analysis of visual images)	To show how “the visual ele- ment of drug discourse” plays a role in the constitution of our beliefs about drug use and users.	Audience: policy makers and service providers	HR
Sharma M, <i>et al.</i> (2017) ¹⁷⁸ Canada (Toronto)	Evidence summary	To review-harm reduction inter- ventions for implementation in the hospital setting.	Audience: service providers and policy makers	HR, CS
Shepherd S, Caldwell J (2017) ¹⁷⁹ Canada (Toronto)	Framework: comprehensive overdose plan	To present the Toronto over- dose prevention and response strategies developed using evidence and community consultations.	Audience: service providers and policy makers	HR, CS

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Small W, <i>et al.</i> (2012) ¹⁸⁰ Canada (Vancouver)	Qualitative research: ethnographic Observation, interviews, and contextual analysis	To explore why PWUD use a supervised injecting facility (Insite) and their situated per- ceptions of risk.	PWUD who use Insite (a super- vised injecting facility; n = 50)	HR, TVIC TVIC not explicit
Smye V, <i>et al.</i> (2011) ¹⁸¹ Canada (Vancouver)	Qualitative research: ethnographic Observation, interviews, and intersectional analysis	To deepen our understanding of harm reduction and MMT by exploring Aboriginal peo- ples' experiences of mental health and addictions services.	Indigenous people who accessed mental health or addiction services in five com- munity-based mental health and primary care facilities	HR, TVIC
Souleymanov R, Allman D (2016) ¹⁸² Canada	Discourse analysis (critical theory lens)	To discuss the importance of disturbing dominant narratives of harm-reduction policy, prac- tice, and research.	Audience: PWUD, policy makers and service providers	HR, CS
Story CR, <i>et al.</i> (2017) ¹⁸³ USA (southern states)	Program evaluation case study (Southern Harm Reduction Collaboration)	To examine the context of HR in the southern US, successful strategies, and outcomes.	Leaders in the Southern Harm Reduction Collaboration (n = 5) key informant interviews	HR, CS
Strike C, <i>et al.</i> (2014) ¹⁸⁴ Canada	Action framework to guide harm-reduction programs (literature review with best practice guidelines)	To synthesize evidence on the distribution of smoking and injecting equipment, safer drug education, and overdose prevention, and to provide user-friendly best practice guidelines.	Audience: PWUD, service provi- ders and policy makers	HR
Strike C, <i>et al.</i> (2015) ¹⁸⁵ Canada	Action framework to guide harm-reduction programs (literature review with best practice guidelines)	To share a continuum of sub- stance-use models and discuss a public health approach to harm-reduction.	Audience: PWUD, service providers and policy makers	HR, CS

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Szelest I, <i>et al.</i> (2019) ¹⁸⁶ <i>Canada (BC)</i>	Program logic model development (based on literature review and key informant interviews)	To synthesize recent literature with perspectives of key informants related to technology-enabled harm-reduction strategies.	Key informants: PWUD, family members of PWUD, service providers, and policy makers	HR
Tait CL (2008) ¹⁸⁷ <i>Canada (Saskatchewan)</i>	Program evaluation (ethical analysis with an emancipatory lens)	To create new channels for dialogue between Indigenous people and health care professionals by operationalizing the concept of “ethical space.”	Audience: Indigenous people and health care providers	CS IIP
Tomori C, <i>et al.</i> (2014) ¹⁸⁸ <i>Vietnam (Hanoi)</i>	Qualitative research (interviews with thematic analysis)	To investigate the facilitators and challenges of re-entry into family and community life for men who had been released.	PWUD (men released from a compulsory treatment program within last two years; n = 43)	HR
Toronto Public Health (2018) ¹⁸⁹ <i>Canada (Toronto)</i>	Framework: drug policy	To share a continuum of substance-use model and discuss a public health approach.	Audience: service providers and policy makers	HR
Treloar C, Cao W (2005) ¹⁹⁰ <i>Australia (Sydney)</i>	Quantitative research: interviewer-administered cross-sectional survey	To compare preferences for accessing injecting equipment between infrequent needle and syringe program users and non-users.	PWUD (n = 294)	CS
Treloar C, <i>et al.</i> (2013) ¹⁹¹ <i>Australia (New South Wales)</i>	Qualitative research (semi-structured interviews with thematic analysis)	To examine client and staff attitudes and experiences of co-location of HCV and opioid substitution treatment services.	PWUD (n = 57); service providers (n = 12) Four clinics where HCV was co-located with opioid substitution treatment	HR

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Treloar C, <i>et al.</i> (2016) ¹⁹² <i>Australia (Sydney)</i>	Qualitative research (interviews with analysis focused on dimensions of trust)	To examine the experiences of trust among clients and staff of needle and syringe programs.	PWUD (n = 31 needle and syringe program clients) Needle and syringe program staff (n = 12) Needle and syringe programs in one area of Sydney	HR
Tweed EJ, <i>et al.</i> (2018) ¹⁹³ <i>UK (Glasgow)</i>	Mixed methods (quality improvement study) Uses a Tripartite Needs Assessment Framework	To investigate the characteristics and health needs of PWUD in Glasgow.	PWUD (currently injecting or in recovery, many were also street-involved)	HR
Vearrier L (2019). ¹⁹⁴ <i>USA</i>	Ethical analysis (clinical and public health ethics)	To analyze harm reduction modalities for PWUD currently in use in the US using ethical principles.	Audience: PWUD, policy makers and service providers	HR, CS
Venner KL, <i>et al.</i> (2018) ¹⁹⁵ <i>USA</i>	Qualitative research: CBR or PAR (analysis and themes from a one-day meeting)	To bring together diverse stakeholders to share perspectives about MAT for Indigenous PWUD.	Representatives of American Indigenous communities and addiction service and research organizations	HR, CS IIP CS not explicit
Voon P, <i>et al.</i> (2018) ¹⁹⁶ <i>Canada (BC)</i>	Qualitative research: CBR or PAR Focus groups (13), analysis uses Rhodes Risk Environment	To describe participants' experiences of concurrent pain and addiction.	PWUD (n = 70)	HR, TVIC
Wallace B, <i>et al.</i> (2018) ¹⁹⁷ <i>Canada (Victoria)</i>	Qualitative research Focus groups (8) Interpretive description	To explore the implementation of harm reduction in homeless shelters to identify micro-level and macro-level influences that sustain structural vulnerabilities.	PWUD (23); service providers (n = 26) Two emergency shelters (where drug use was not permitted)	HR, CS CS not explicit

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Author (year) Country	Methodology/ methods	Primary aim	Study population/ context	HEO approach
Wallace B, et al. (2019) ¹⁹⁸ <i>Canada (Victoria)</i>	Program evaluation (multiple case study) Analysis: implementation framework	To examine the similarities and differences in relation to implementation and impact of services with each site constituting a case.	Service providers (overdose prevention site staff) Three overdose prevention sites for injection drug use in one city	HR
Walter AW, et al. (2018) ¹⁹⁹ <i>USA (Massachusetts)</i>	Qualitative research: CBR or PAR	To inform the development of relevant interventions to prevent and reduce drug use among fishing industry workers in one city.	Key informants from the fishing industry, the criminal justice system, and health care professionals	HR, CS
Westfall JA (2015) ²⁰⁰ <i>Canada (British Columbia)</i> [Thesis]	Mixed methods: (case study, surveys, and stakeholder interviews)	To examine case studies in Canada and the US to discern how other jurisdictions have reduced opioid overdoses and identify implications for policy makers.	Audience: PWUD, service providers, and policy makers	HR Focuses on overdose education and naloxone distribution
Zaller NDB, et al. (2009) ²⁰¹ <i>USA (Providence)</i>	Quantitative research: surveys designed to measure beliefs about MMT	To understand why many PWUD do not currently participate in MMT with a focus on people from visible minorities.	PWUD not currently receiving MMT, (n = 53) Latinos and African Americans Data collected at a community HIV test site and street outreach	HR, CS CS not explicit
Zhang SX, Qiu G (2018) ²⁰² <i>Multiple (USA, China)</i>	Literature review Includes culturally appropriate care	To review studies on psychosocial interventions for PWUD and are criminal offenders in China.	Audience: service providers, policy makers, and researchers	HR

CBR, community-based research; CS, cultural safety; HCV, hepatitis C virus; HR, harm reduction; HEO, health-equity-oriented; IIP, Indigenous-informed perspective; MAT, medication-assisted treatment; MMT, methadone maintenance treatment; PAR, participatory action research; PWUD, person who uses drugs; SDoH, social determinant of health; TVIC, trauma- and violence-informed care

Appendix IV: Details of included frameworks

Author Year Country	Framework type/ primary aim	Framework description and health-equity-oriented approach (*denotes all three health-equity-oriented approaches)	Key recommendations
BC Women's Hospital (2019) ⁷³ Canada	Guiding principles of care model Aim: To ensure best care and supports to pregnant/parenting women (PWUD).	Five evidence-based principles include: 1) establish collaborative patient-provider relations based in trust; 2) draw on the principles of culturally safe and trauma-informed practice; 3) provide individualized and integrated care; 4) assess each person's psychosocial and medical needs, making appropriate referrals to obtain resources that support health; 5) offer comprehensive harm-reduction services. <i>*This framework integrates harm reduction, cultural safety, and trauma- and violence-informed care.</i>	<ol style="list-style-type: none"> 1) Make a commitment to providing support and resources at the highest levels of the health system. 2) Make rooming-in the standard of care for women who use drugs. 3) Educate and support interdisciplinary health providers to provide evidence-based care through mentorship and supervision; build communities of practice; include social workers from child welfare. 4) Support expansion of integrated service models (including primary care networks and foster care).
Campaign for Trauma-informed Policy and Practice (2017) ⁸³ USA	Policy brief with evidence review Aim: To make visible the role of adverse childhood experiences on PWUD.	Reviews evidence linking trauma and adverse childhood experiences to opioid addiction. Provides examples of effective prevention and treatment programs, and describes innovative approaches used by communities to address the current epidemic. <i>Addresses harm reduction, and trauma- and violence-informed care.</i>	Research indicates that the most effective way to prevent and treat opioid addiction is to understand its origin in adverse childhood experiences. Recognize that traumatic experiences are pervasive. Reduce the overall level of violence and trauma across the lifespan and ensure that every child grows up in a safe and nurturing environment. To effectively develop and implement community-wide trauma-informed initiatives, form intersectoral coalitions that bring together many different institutions and stakeholders.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Canadian Mental Health Association, Ontario (2017) ⁸⁴ <i>Canada (Ontario)</i>	Incorporates an HEO model in a framework for action. Aim: To embed equity in service-delivery planning by addressing equity issues in mental health.	This paper provides a framework of the overlapping relationships between equity and mental health that highlights the intersections between mental health, equity, and SDoH. It incorporates the HEO model into a framework for action by advancing equity at four levels: service delivery, organizational, regional planning, and provincial policy levels. <i>Addresses harm reduction and intersecting SDoH.</i>	Three strategies organize this action plan framework: 1) Embed equity in service-delivery and planning and improve the evidence-base. 2) Tackle SDoH. 3) Challenge discrimination and foster participation of people with lived experience of mental health and/or addiction issues. Provides a number of resource links for each goal (action) and at each level of service delivery.
Canadian Mental Health Association, Ontario (2018) ⁸⁵ <i>Canada (Ontario)</i>	Incorporates an HEO model for equity in mental health. Aim: To equip community service providers with current, accessible, and relevant information to inform and develop an opioid overdose and response protocol.	Most of this document focuses on providing information for community organizations about harm reduction and naloxone administration as a first-aid response. Includes guidance for implementing an overdose protocol for monitoring, evaluation, and for communicating with clients, families, partner agencies, and communities. One appendix reviews how to support partner agencies that serve marginalized populations (women in the shelter systems, older adults, and Indigenous communities). <i>Addresses harm reduction, and trauma- and violence-informed care. Intersecting SDoH.</i>	Use the following questions to embed an equity approach into mental health and addictions services: 1) How can we raise awareness of and consider the needs of marginalized populations when implementing the opioid overdose protocol in our organization? 2) How can we support partner organizations that serve marginalized populations to raise awareness about opioid overdose prevention and naloxone administration? 3) How can we partner with organizations in our community that serve marginalized populations to minimize the harms related to opioids?

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Canadian Nurses Association (2017) ⁸⁶ Canada	Principles of harm reduction framework Aim: To present current information about harm reduction for discussion.	Describes five principles of harm reduction: 1) reduces harms from a broad range of substances; 2) discontinued use or abstinence is not required; 3) complements prevention and treatment approaches; 4) empowers PWUD to make informed decisions; 5) emphasizes humanistic values (nonjudgmental acceptance, treating PWUD with dignity and compassion). <i>Primarily addresses harm reduction.</i>	1) Need to critically analyze access to health and social services, particularly harm reduction, counseling, and trauma-care services. 2) The organizational factors that shape access to health care, housing, and social services need to be improved. 3) There is a need for official nursing policies that are culturally or gender sensitive to avoid further traumatizing people who use illegal drugs. 4) There is a need for more consideration of the ethical concerns associated with caring for people who use illegal drugs.
Carter C, Graham B (2013) ⁸⁷ Canada	Policy brief with five key components Aim: To discuss the multi-jurisdictional policy barriers that hinder scale-up of opioid prevention and treatment initiatives in Canada.	Five key components of a harm reduction perspective: 1) make naloxone more readily available; 2) scale up community-based overdose education and training programs; 3) reduce barriers to calling 911 during a drug overdose by implementing Good Samaritan legislation; 4) implement opioid prescription guidelines that do not discriminate against PWUD; 5) increase timely collection, analysis, and dissemination of data on drug overdose events. <i>Addresses harm reduction only.</i>	Concludes that a comprehensive public health approach to overdose requires a harm-reduction perspective. Articulates key strategies at both provincial and federal levels.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Collins AB, et al. (2019) ⁸⁹ Canada	Intersectional risk environment framework Aim: To introduce a relational intersectional lens to guide future research and orient structural interventions.	This framework addresses intersecting social, physical, economic, and policy (structural) risks at both micro and macro environmental levels. <i>Addresses harm reduction and cultural safety.</i> <i>Informed by an Indigenous perspective.</i>	An intersectional risk environment framework can support social justice efforts to reduce inequities and ensure nuance in defining risks, developing solutions, and implementing strategies. It is important to examine unforeseen consequences of policies and public health strategies. Involving diverse populations and community representatives in policy and dialogues can better challenge the status quo and minimize generalizations.
EQUIP Health Care (2018) ⁹⁹ Canada (Vancouver)	Includes an HEO harm-reduction framework for substance use in context. Aim: To provide a tool for primary health care organization and providers working with PWUD.	The framework highlights the determinants of substance abuse, the determinants of harm and the harms of substance use. It defines harm reduction as an approach that focuses on preventing harms of substance use, not reducing substance use. <i>*This framework integrates harm reduction, cultural safety, and trauma- and violence-informed care.</i>	To question six areas as you move your practice toward HEO harm reduction: 1) Society's assumptions about substance use. 2) Social location, personal experiences, and practices. 3) Language used to avoid stigmatizing PWUD. 4) Spaces where services are provided. 5) Routine practices and policies 6) Who is and should be involved in decision-making.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Expert Working Group on Narcotic Addiction (2012) ¹⁰¹ Canada (Ontario)	Stewardship model with guiding principles. Aim: To provide a new model of stewardship for prescription narco- tics use in Ontario.	Guiding principles that underpin this model include respect, equity and access, diversity, excellence and innovation, strengths-based, holistic, integration, partnership, and collaboration. This framework includes the following strat- egies: health promotion, education and other supports to build provider capacity, community development, access to high- quality services and treatment, and harm reduction. <i>*This framework integrates harm reduction, cultural safety, and trauma- and violence- informed care.</i>	<ol style="list-style-type: none"> 1) Develop and disseminate educational materials for diverse audiences to increase knowledge of signs and symptoms of opioid withdrawal and overdose. 2) Develop an evidence-based model for interdisciplinary care to address SDoH (root cause of vulnerability to addiction). 3) Ensure people have access to a full range of harm reduction and counseling services. 4) Upscale and sustain availability of naloxone and harm-reduction information; provide policy and resource support for peer-based interventions. 5) Partner with people with lived experience and their family members to address stigma and discrimination by using public service announcements. 6) Integrate cultural practices into approaches to treatment and healing for Indigenous communities.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
First Nations Health Authority (2019) ¹⁰² Canada (Vancouver)	Action framework for a system-wide response Aim: To provide a framework for action focused on preventing overdose deaths while also supporting broader goals of mental health and wellness.	Action framework guided by Indigenous understandings of reciprocal accountability and cultural safety. Improving real-time data from First Nations communities and other data sources supports and informs local action. <i>*This framework integrates harm reduction, cultural safety, and trauma- and violence- informed care.</i>	Recommendations are organized by four goals: 1) Prevent people who overdose from dying (naloxone, reduce stigma to mitigate risk of using alone, improve 911 linkage to commu- nities, increase awareness of Good Samari- tan overdose act, ensure services are culturally safe and trauma informed). 2) Keep people safer when using (prevent diversion from prescribed opioids to street drugs, increase safe consumption sites, drug checking, and public education about risk). 3) Create an acceptable range of treatment options (Indigenous-specific treatment beds, wrap-around support, mobile treatment/ detox, telehealth, opioid agonist therapy services in community and rural settings, and land-based treatment options). 4) Support people on their healing journey (support healing from trauma, consistent pathways across service providers, develop comprehensive pain management approaches, enhance emotional resilience, and connection with Indigenous culture).

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Hunting G, Grace D, Hankivsky O (2015) ¹¹⁷ Canada	Intersectionality- informed model of social inclusion and exclusion Aim: To address the complexities of discrimi- nation, stigma and social inclusion in rela- tion to mental health and substance use.	Proposes an intersectionality-informed model that expands and strengthens con- ceptualizations of inclusion in ways that promote equity. The model makes explicit the role of social locations and multi-level processes and contexts that shape belong- ing, inclusion, and exclusion. The model is built upon the following premises: 1) individuals experience social inclusion and exclusion simultaneously; 2) experiences of social inclusion and exclusion differ within and across social locations and populations according to time and place; 3) structures and processes of power consti- tute and shape social inclusion and exclu- sion on many levels. <i>Primarily addresses cultural safety.</i>	Conceptualize social inclusion within public policies and programs as directly shaped by and intersecting with the processes and factors that shape exclusion. Recognize the centrality of these multi-level processes and factors that shape the experiences of PWUD.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Johns Hopkins Bloom- berg School of Public Health (2018) ¹²⁰ USA	10 standards framework for policing and the opi- oid crisis Aim: To review promis- ing models for policing and share 10 standards of care.	Evidence-based standards of care for police departments as a framework for action. <i>Addresses harm reduction only.</i>	<ol style="list-style-type: none"> 1) Focus on overdose deaths as the leading indicator. 2) Use naloxone: equip and train officers. 3) Educate police and the public about addiction and stigma. 4) Refer to treatment: police officers need to help PWUD access treatment. 5) Advocate for “on demand” treatment access. 6) Advocate for treatment for those who are incarcerated or under community supervision. 7) Collaborate with agencies to support syringe service programs. 8) Consider fentanyl detection services. 9) Explore innovations such as supervised consumption spaces. 10) Support and increase awareness of Good Samaritan laws.
Johnson E (2019) ¹²¹ USA	A care model for PWUD (pregnant women) Aim: To share a care model for PWUD (preg- nant women).	Includes an evidence-based review of inte- grated care models for childbearing women (PWUD). This care model integrates prenatal care, medication-assisted treatment and behav- ioral health services delivered in a trauma- informed environment. <i>Addresses harm reduction, and trauma- and violence-informed care.</i>	<ol style="list-style-type: none"> 1) Consistent care provider and patient- centered, nonjudgmental care. 2) Integration of medication-assisted treat- ment with buprenorphine and prenatal care. 3) Multidisciplinary care that includes behav- ioral health care professionals. 4) More frequent prenatal care visits in a safe environment. 5) Trauma-informed care. 6) Integration of or collaboration with psy- chiatric providers.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Joudrey PJ, et al. (2019) ¹²² USA	Model of post-release overdose risk for PWUD (people released from prison) Aim: To present a heuristic model of post-release opioid-related overdose risk.	Presents a model for post-release overdose risk that includes underlying factors, intermediate determinants (mediators), proximate determinants, and biologic effects. Proposes that this model inform policy and guide future research. <i>Addresses harm reduction, and trauma- and violence-informed care.</i>	<ol style="list-style-type: none"> 1) Expand access to opioid agonist therapy during and after incarceration. 2) Provide naloxone programs (training and supplies) pre- and post-release from prison. 3) Reduce barriers to access to medical care and social services. 4) Integrate trauma-informed care. 5) Develop community partnerships to assist with housing and integration into society. 6) Reduce initial exposure to incarceration by ending the war on drugs. <p>Research recommendations: Use the model for post-release overdose risk to investigate mechanisms (including mental health and disrupted social networks), novel interventions (care coordination, police diversion programs and drug courts), implementation and dissemination of the best available evidence.</p>

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Nathoo T, et al. (2018) ¹⁴⁷ Canada	Trauma-informed practice framework organized by four principles. Aim: To guide discussion about how becoming trauma-informed can assist service providers.	Principles that underpin the framework include trauma awareness, safety and trustworthiness, choice, collaboration and connection, and strengths-based approaches and skills building. <i>Addresses harm reduction, and trauma- and violence-informed care.</i>	<ol style="list-style-type: none"> 1) Adapt procedures, practices, and services to reflect an understanding that any or all people may have experiences of trauma. 2) Provide all staff basic training and develop policies to minimize the possibility of re-traumatization. 3) Create opportunities for people to provide feedback on how the program environment affects physical and emotional safety. 4) Develop policies and procedures for working with specific clients; provide staff with training in cultural competency, cultural safety, and cultural humility. 5) Involve PWUD in developing a plan for their own care. 6) Move towards supportive, recovery oriented, strengths-based language that emphasizes choice and collaboration. Involve patients/clients in evaluating services. 7) Encourage strengths-based policies and procedures throughout the organization.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Nutton J, Fast E (2015) ¹⁴⁸ Canada	Indigenous historical trauma framework Aim: To share a schematic model of the transmission of trauma across generations and potential protective factors.	Description: Uses the term “Big Event” to describe the historical and ongoing trauma due to colonization and presents a model of historical trauma (acts of cultural oppression), cross-generational transmission with impact on health outcomes, and cultural strategies that mobilize Indigenous protective factors. <i>Addresses harm reduction and cultural safety. Informed by an Indigenous perspective.</i>	Recommendations for policy and practice: Presents “Big Solutions” that have the potential to buffer the negative effects using substance use as an example. These include: 1) Decolonizing strategies. 2) Identity development (stressing the importance of cultural belonging). 3) Culturally adapted interventions (identified through community engagement). Recommendations for future research include: 1) Explore the association between experiences of historical trauma and substance use. 2) Identify decolonizing strategies and ways to buffer the impact of historical trauma. 3) Explore why some Indigenous people(s) are more resilient. 4) Evaluate deep structure adaptations.
Pauly B, et al. (2017) ¹⁵⁷ Canada	Community overdose response plan Aim: To present four key elements of a comprehensive overdose response and describe a process for implementation.	The goals of a comprehensive overdose response plan are to prevent overdose deaths, promote access to substance use services on demand, and to strengthen systems responses to promote health equity and social justice. <i>*This framework integrates harm reduction, cultural safety, and trauma- and violence-informed care.</i>	To reach everyone, regardless of their social or economic circumstances, the following strategies are needed for overdose prevention: 1) Strengthen system resilience and community capacity for responding to and preventing overdoses. 2) Recognize and disrupt social and personal stigma and discrimination associated with substance use and addiction. 3) Implement a broad range of health promotion and harm-reduction interventions to prevent overdoses. 4) Assess and strengthen pathways to substance-use services and supports.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Pauly B, et al. (2013) ¹⁵⁸ Canada	Framework for integration of housing and harm-reduction policy. Aim: To examine “Housing First” as an example of the integration of housing and harm-reduction and discuss a community-level policy framework for action.	A systems-level framework for the integration of housing and harm-reduction includes developing policies of social inclusion, ensuring an adequate supply of housing, providing harm-reduction services on demand, and providing organizational and system infrastructure. Four themes cut across the triangle of access, retention, and quality of care. These include diversity, flexibility, multidisciplinary, and engagement. <i>Primarily addresses harm reduction.</i>	<ol style="list-style-type: none"> 1) Involve clients and their advocates in planning both individual treatment and system planning to reduce stigma and discrimination, and improve quality of care. 2) Practice guidelines must be adapted to promote multidisciplinary care. 3) Ensure flexibility in the application of the guidelines where local or individual circumstances require careful adaptation to achieve the goals of the program. 4) Attend to how gender, age, and cultural differences affect methadone maintenance therapy. 5) Training and system design should take into account these various needs and ensure the system and the professionals who work in it are able to respond appropriately to the diverse needs of individuals accessing services.
Province of Nova Scotia (2017) ¹⁶⁴ Canada (Nova Scotia)	Framework with a wellness focus Aim: To outline keys areas of focus for responding to problematic opioid use and overdose in Nova Scotia.	Identifies key areas of focus or action in response to opioid use and overdose including engagement, prevention, treatment, and criminal justice. Recommends trauma informed approaches (that include adverse childhood experiences) and a comprehensive health system approach that applies the framework to broader non-health care settings. <i>Addresses harm reduction, and trauma- and violence-informed care. Informed by an Indigenous perspective.</i>	<p>Recommendations to address fundamental and long-standing issues in our health care system:</p> <ol style="list-style-type: none"> 1) Build primary care capacity. 2) Increase access to mental health and addictions services. 3) Shift away from an over-reliance on opioids to treat pain. 4) Build systems that recognize the links between trauma, mental health, and substance use. 5) Address the root causes and contributors to substance using including stigma. 6) Create healthy and supportive families and communities to improve our collective health.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Registered Nurses' Association of Ontario (2015) ¹⁶⁹ Canada (Toronto)	<p>Framework paper</p> <p>This best practice guideline includes a review of relevant HEO frameworks</p> <p>Aim: To help nurses become more comfortable, confident, and competent when caring for clients who use substances and may be at risk for or experiencing substance-use disorder.</p>	<p>Evidence-based best practice guideline designed to assist health care providers across all settings who are engaging with clients who use substances. It includes an algorithm as a guide for action and a review of the following guiding frameworks: 1) SDoH and health inequities; 2) population health promotion model; 3) stages of change model; 4) harm reduction; 5) trauma-informed approaches; 6) cultural competence and cultural safety; 7) recovery as an ongoing process.</p> <p><i>*This framework integrates harm reduction, cultural safety, and trauma- and violence-informed care.</i></p>	<p>Practice recommendations include recommendations for assessment (screening and comprehensive assessment), planning (build collaborative relationships and using motivation interviewing), implementation (brief interventions, supporting access to treatment, using family-based therapies for youth), and evaluation (using the client's goals).</p> <p>Education recommendations include clinical practice opportunities in nursing education, participating in multidisciplinary continuing education, and using reflexivity to enhance self-awareness.</p> <p>Policy recommendations include increasing access to integrative and collaborative care, reducing health inequities by dedicating resources to preventing, treating, and supporting recovery, making integrated and multifaceted approaches (that include harm reduction) a priority in organizations, and using knowledge translation processes to integrate best practices across all practice settings.</p>

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Registered Nurses' Association of Ontario (2018) ¹⁷⁰ Canada (Toronto)	Literature review with best practice guidelines Aim: To develop a guideline on the most effective approaches for SIS delivery to PWUD. Ultimately to promote health equity for PWUD.	Identifies recommendations in three areas: 1) trauma-informed, culturally safe, harm-reduction care for PWUD in supervised injection facilities; 2) educational strategies for health care providers (nurses) working in supervised injection facilities; 3) organizational and health system policies required to support health care workers to provide high-quality care in supervised injection facilities. <i>*This framework integrates harm reduction, cultural safety, and trauma- and violence-informed care.</i>	Recommendations for practice: develop trusting relationships with PWUD based on respect and a nonjudgmental approach; use reflective practice to recognize and acknowledge health inequities that result from trauma, marginalization and stigma; and engage in shared decision-making with PWUD. Education: develop education programs for health workers to increase knowledge and skills, and improve attitudes required to provide high-quality care for PWUD in supervised injection facilities; incorporate PWUD and practice experts in education; and modify the structure and format to increase relevance, meaningfulness, and accessibility. Policy: integrate peer workers and comprehensive services into programming; embed supervised injection facilities into existing health and social settings; align service delivery with local needs; and advocate for legislation and regulations that increase access to supervised injection facilities.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Saloner B, et al. (2018) ¹⁷⁴ USA	Ecological public health framework Aim: To present an ecological framework that provides guidance for improving public health and clinical practice.	A comprehensive public health framework grounded in ecological models of health behavior that highlights the multiple determinants of drug use and upstream factors that drive addiction, overdose, and social outcomes. Model includes the drug supply environment, structural factors, health, criminal justice, economic, and other social policy, the drug use context and behaviors, and health and social outcomes. (p. 285) <i>Addresses harm reduction, and trauma- and violence-informed care.</i>	Priority recommendations include: 1) Improved data collection. 2) Safe prescribing with addiction treatment integrated into pain management. 3) Stigma reduction with public messaging. 4) Harm reduction including syringe services, naloxone, fentanyl test kits, and safe consumption facilities. 5) Treatment expansion with universal access and methadone prescribing. 6) Criminal justice reform with pre-arrest diversion programs, changes in policing practices, and access to medication-assisted treatment in prisons. 7) Regulatory changes that align regulations for controlled substances with best public health practices.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Shepherd S, Caldwell J (2017) ¹⁷⁹ Canada (Toronto)	Comprehensive overdose action plan Aim: To present the Toronto overdose prevention and response strategies developed using evidence and community consultations.	The action plan combines the knowledge and expertise of PWUD, their family/friends, and people working in the field, with best practices and international research. Focus is on actions that can be taken at the local level. <i>Addresses harm reduction and cultural safety.</i>	<ol style="list-style-type: none"> 1) Work with multi-sector partners and PWUD to implement local/provincial and federal overdose action plans. 2) Community services require an overdose prevention and response plan. 3) Address barriers to calling 911 for medical assistance during an overdose. 4) Supervised injection facilities that provide a safe place to inject drugs with onsite overdose intervention. 5) Drug-checking programs to test illicit drugs for the presence of toxic contaminants. 6) A range of substance use treatment options to suit individual needs. 7) Governments should prevent overdose due to decreasing access to prescribed (safe) opioids. 8) Real-time overdose surveillance and monitoring systems. 9) Address systemic social factors that can lead to overdose and other harms related to substance use. 10) Increase community dialogue on a public health approach to drug policy in Canada. 11) Develop and implement evidence-based strategies to address stigma and discrimination, in consultation with PWUD.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Strike C, et al. (2014) ¹⁸⁴ Canada	Action framework to guide harm-reduction programs (Part 1) Aim: To synthesize evidence about the distribution of smoking and injecting equipment, safer drug education, and overdose prevention. To provide user-friendly best practice guidelines.	Grounded in community-based research principles, this action framework aims to: 1) improve the effectiveness of harm reduction programs; 2) reduce transmission of HIV, hepatitis C virus, hepatitis B virus, and other harms; 3) improve the quality and consistency of harm-reduction services; 4) inform decisions about the best use of resources; 5) advocate for better resources for harm-reduction services; 6) provide benchmarks for evaluation; 7) identify targets for improvement at program and systems levels. <i>Addresses harm reduction only.</i>	This best practice guideline (Part 1) identifies evidence-based recommendations for harm-reduction services: 1) Equipment distribution, including needles and syringes, cookers, filters, ascorbic acid, sterile water, tourniquets, and smoking equipment for crack cocaine. 2) Disposal and handling of used drug equipment. 3) Safer drug use education. 4) Overdose prevention, education, and naloxone distribution.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Strike C, et al. (2015) ¹⁸⁵ Canada	Action framework to guide harm-reduction programs (Part 2) Aim: To share a continuum of substance use models and discuss a public health approach to harm reduction.	Grounded in community-based research principles, this action framework is a continuation of Part 1 (see above). Also reviews a number of service delivery models with the goals of optimizing service delivery, expanding access, enhancing training and education, and evaluating new program models. <i>Addresses harm reduction and cultural safety.</i>	This best practice guideline (Part 2) identifies evidence-based, program-level recommendations in the following areas of harm reduction services: 1) Program delivery models for needle and syringe programs including mobile and fixed-site, pharmacy-based, peer-based outreach, and vending machines. 2) Needle distribution programs for steroids, other hormones, and for piercing or tattooing. 3) Evaluating the need to distribute foil sheets for heroin smoking and/or crystal methamphetamine smoking equipment. 4) Prevention, assessment, and treatment of injection-related complications. 5) Testing services for hepatitis, pneumococcal pneumonia, influenza, tetanus, and diphtheria. 6) HIV and/or hepatitis C treatment referrals. 7) Substance use treatment referrals. 8) Housing services referrals. 9) Relationships with law enforcement. 10) Education and other services for prisons.

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Author Year Country	Framework type/ primary aim	Framework description and health- equity-oriented approach (* denotes all three health-equity-oriented approaches)	Key recommendations
Toronto Public Health (2018) ¹⁸⁹ Canada (Toronto)	Principle based frame- work for drug policy Aim: To share a contin- uum of substance use model and discuss a public health approach.	A public health framework based on a commitment to social justice, attention to human rights and equity, evidence-informed policy and practice, and addressing basic needs that include income, housing, and education. <i>Addresses harm reduction only.</i>	Strategies to achieve a public health approach: 1) Health promotion: helping people make informed choices about their substance use. 2) Health protection: creating healthy environments. 3) Prevention: helping youth avoid or delay drug use. 4) Harm reduction: reduce the harms of drug use such as through needle distribution. 5) Treatment: providing timely and accessible treatment when needed.

HEO, health-equity-oriented; PWUD, people who use drugs; SDoH, social determinants of health; SIS, supervised injection services.