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# BMJ Open

## Substance use disorders among African Caribbean and Black (ACB) people in Canada: A scoping review protocol

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3 **Substance use disorders among African Caribbean and Black (ACB) people in Canada: A**  
4 **scoping review protocol**  
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## Abstract

### Introduction:

African Caribbean and Black (ACB) people in western countries experience life stressors that increase their vulnerability to substance abuse. Previous research has demonstrated that substance abuse continues to be one of the most complex and prevalent problems among ACB people and a number of studies have been conducted to characterize substance use and abuse patterns in this special population. It is particularly vital to understand substance use disorders among this group of individuals in order to develop appropriate intervention strategies. Therefore, this scoping review seeks to map available evidence on substance use among ACB people in Canada. We will explore and characterize substance use disorders as well as their health and social impact.

### Methods and analyses:

This study will use the methodological framework for scoping reviews developed by Arksey and O'Malley. We will search electronic bibliographic databases including Ovid MEDLINE, PsychINFO and CINAHL to identify articles that meet the eligibility criteria. We will limit our search to English articles published between 2000 to 2019. In addition, we will conduct grey literature search in key organization websites and google. Two investigators will independently screen citations and full-text articles. Our finding will be reported according to PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) guidelines. We will use both quantitative and qualitative methods to summarise and analyse the studies identified in this review.

**Ethic and dissemination:** This study will use only published literature. Our proposed study does not involve human participation; therefore, research ethic approval is not required. This study will provide evidence that will inform development of strategies for appropriate intervention, as well as policy and further research. Results will be disseminated via publications in open access peer-reviewed scientific journals, and presentations at scientific meetings and to the lay public via the media where appropriate.

### Strengths and limitations

- Our search strategy is very comprehensive; it was developed by team members with strong experience in evidence search and review in consultation with a medical research librarian.
- Our review uses a rigorous scoping review methodology and includes all type of study designs.
- Our source of literature is expansive; it includes three databases that cover our research questions and grey literature.
- Despite our comprehensive search strategy, some relevant articles might not be captured
- The limitation of our search to English language represents a potential limitation to our study.

## Background

In western countries racialized minorities are more likely to experience structural and social stressors that lead to health disparities and exacerbate poor health status<sup>1 2</sup>. African Caribbean and Black (ACB) people, especially those who are immigrants and refugees, experience myriad challenges and problems such as language barriers, exclusive immigration policies, unemployment, poverty, lack of access to health care, discrimination and racism<sup>3</sup>. Research confirms that social inequities, systemic racial discrimination, sexism, poverty and marginalization contribute to compromised mental health among racialized people<sup>4</sup>. Evidence also indicates that some marginalized ACB people have turn to substance use as a coping strategy to overcome cumulative hardship and stressful life conditions<sup>5</sup>. Depending on different factors such as type of drugs, doses, frequency, and existing health conditions, drug use can have various short and long-term effects such as stroke, change in appetite, heart rate, HIV/AIDS, HCV, blood pressure, heart attack, mental health, overdose, and death<sup>6 7</sup>.

According to Health Canada, 13% of Canadians were cigarette smokers and 13% used illicit drugs (including cannabis, cocaine or crack, ecstasy, speed or methamphetamines, hallucinogens or heroin) in 2015<sup>8</sup>. About 22% and 3% of Canadians reported psychoactive pharmaceuticals use and abuse in 2015 respectively and 77% of Canadian reported alcohol use (an increase of 1% compared to 2013)<sup>8</sup>. It is important to note that 10% of Canadians age 15 years or older reported symptoms that met the eligibility criteria for mental health or substance use disorders, including alcohol abuse or dependence, cannabis abuse or dependence, other drug abuse or dependence, major depressive episode, bipolar disorder and generalized anxiety disorder<sup>9</sup>.

Like other Canadians, ACB people have reported history of substance abuse. Data derived from multiple cycles (2005–2011) of Canadian Community Health Survey-Mental Health (CCHS-MH) in Ontario showed that about 40% and 18% of Caribbean and African adults reported lifetime cannabis usage respectively.<sup>10</sup> Moreover, 23% of Caribbean and 9% of African have used cannabis in the past year before the survey while the prevalence of problematic use (moderate/high, score of 8 or more on the ASSIST-CIS) was 8% for Caribbean and 4% for African<sup>10</sup>. In a community-based study of party drug use among ethno-racially diverse gay and bisexual men (Asian, Caribbean, Latino, Aboriginal, Mixed and others) in Toronto, participants reported regularly use of ecstasy, cannabis, ketamine, and cocaine<sup>11</sup>. In the same study, 43% of participants were polydrug users; almost all participants reported engaging in sex while they were on drugs<sup>11</sup>. Specifically, for women, data from the Canadian HIV Women's Sexual and Reproductive Health Cohort Study reported various types of drug users. Among participants who self-identified as African, Caribbean and Black, there were tobacco users (5%), alcohol users (41%), 'socially acceptable' poly-substance users, (5%), illicit poly-substance users (4%), and illicit poly-substance users of all types (3%)<sup>12</sup>.

Drug abuse is associated with increased risk of developing a mental disorder and utilization of emergency room. A population-based data from the Ontario HIV Treatment Network reported recreation drug (RDU) use (16%) and co-occurring RDU and depression (34%) among heterosexual individuals. Among African, Caribbean, Asian or Latino groups, the prevalence of RDU and co-occurring RDU and depression was 14% and 12% respectively<sup>13</sup>. Moreover, RDU-only or co-occurring depression and RDU were associated with increased incidence of emergency department (ED) visits compared to controls<sup>13</sup>. Drug abuse also increases risky sexual behaviour and the risk of HIV acquisition. Evidence from another Canadian study showed that ACB women reported having sex under alcohol, substance use and drug influence - 4% reported having a sexual partner who injected drugs, 2% had shared drug use equipment and

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3 27% had ever mixed sex with drugs or alcohol; 44% of ACB men in the study reported that they  
4 had engaged in sex while using drugs or alcohol<sup>14</sup>. Among people living with HIV, a recent  
5 study on childhood adversities and physical and mental health outcomes in adults living with  
6 HIV in Ontario reported 16% of frequent parental substance use among ACB people.<sup>15</sup>  
7 Black people living in western countries experience different challenges that increase their  
8 vulnerability to consume illicit drugs and substances. There is need to characterize substance use  
9 disorders among this group of individuals. The proposed scoping review aims to explore the  
10 available research evidence regarding common substance use disorders and their impact on the  
11 health of ACB people in Canada.  
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## 14 **Methods and Analysis**

15 We will conduct a search of all research designs and types of publication as well as grey  
16 literature and reports. The review will adhere to PRISMA (Preferred Reporting Items for  
17 Systematic Reviews and Meta-Analysis) guidelines, including search strategy, selection criteria,  
18 data extraction, and data analysis<sup>16</sup> and will be conducted using the methodological framework  
19 for scoping reviews proposed by Arksey and O'Malley's<sup>17</sup>. The framework recommends the  
20 following six steps: 1) Identifying the research question, 2) Identifying relevant studies, 3) Study  
21 selection, 4) Charting the data, 5) Collating, summarising and reporting the results, 6)  
22 Consultation.  
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### 26 **Step 1: identifying the research question**

27 The following research questions of the scoping review were identified:

- 28 1) What characterize substance use disorders (i.e., types of disorder, prevalence, poly drugs,  
29 and drug misused) among ACB people?
- 30 2) What is the health and social impacts of substance use among ACB people?  
31

### 32 **Step 2: identifying relevant studies**

33 In order to address the objectives of the review, electronic databases and a Web-based search  
34 using google search engine will be conducted to identify both published and grey literature. Also,  
35 we will search the website of key organizations such as Health Canada, Statistic Canada, the  
36 Canadian Centre on Substance Use and Addiction. A strategy using a combination of Medical  
37 Subject Headings (MeSH) and 'free-text' terms in conjunction with the Boolean operators "and"  
38 and "or" will be used and will be adapted for each individual database. We will conduct searches  
39 in relevant electronic databases: Ovid MEDLINE, PsycINFO and CINHALL. Our search will be  
40 limited to English language. Only studies published between 2000 to 2019 will be included in  
41 this review. We will check reference lists to identify any additional relevant article that were not  
42 captured by our search strategy described in Table 1 and 2.  
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### 47 **Step 3: Study selection**

48 We will use Endnote 9 (Clarivate Analytics), a citation management software program to  
49 manage references and remove duplicates. We will import all citations obtained using the search  
50 strategy into Rayyan, a web and mobile application for systematic reviews<sup>18</sup> to facilitate study  
51 screening and selection. Study selection will proceed according to the stages described below.  
52 **Stage 1:** A customized form reflecting the inclusion criteria in Table 3 will be pilot tested by two  
53 reviewers. Specifically, a screening form will be developed and will be applied by two reviewers  
54 independently to a sample of 5% abstracts to ensure consistency of use and clarity of the  
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3 instrument. A Cohen's kappa statistic<sup>19</sup> will be estimated to measure inter-rater reliability, and  
4 screening will begin when >60% agreement is achieved.

## 5 **Stage 2: Assessment of studies for inclusion**

### 6 **Inclusion criteria**

7 To be included in this study a reference should meet the following criteria:

- 8 1) Population: African, Caribbean and Blacks  
9 2) Study examines at least one of the following: illicit drugs or substance use patterns or  
10 health impact of illicit drugs or substance use  
11

12 All titles and abstracts identified from the electronic database search will be reviewed  
13 independently by two reviewers. Differences in opinion will be resolved by consensus and  
14 discussion with a third author in situations where consensus cannot be reached. In cases where  
15 abstracts are not provided, are unclear, or there is any other reason for uncertainty, the full article  
16 will be obtained before making the decision regarding eligibility for inclusion. The full text of all  
17 potentially relevant articles will be obtained and will be reviewed using the inclusion criteria  
18 defined above.

### 19 **Exclusion criteria**

20 Article aims to describe normal prescription drug use  
21  
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## 24 **Step 4: charting the data**

25 Eligible studies will be extracted using a pre-designed data extraction form. The data extraction  
26 form will be pilot tested with a sample of 5 studies to ensure clarity and consistency. We will  
27 abstract basic study information like: first author and year of publication; in addition will include  
28 information about the population, substance or illicit drug use (Table 4).  
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## 31 **Step 5: collating, summarising and reporting the results**

32 Both quantitative and qualitative methods will be used to summarised and analysed the studies  
33 identified in this review. Specifically, quantitative data reporting will include simple numerical  
34 counts of information such as: total number of studies, number of drugs and number of drug  
35 category. In addition, we will conduct a narrative synthesis of data to provide an overview of the  
36 state of the literature and report any gaps that might require further investigation. Our synthesis  
37 will inform whether ACB people experience disorders relate to alcohol, tobacco, stimulant,  
38 depressant, hallucinogen, opioid, or cannabis. Also, it will inform whether ACB people use more  
39 than one drug at a time and, the health and social impacts of substance use.  
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## 42 **Step 6: consultation**

43 Patients and or public were not involved  
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## 46 **Ethic and dissemination**

47 Our proposed study does not involve human participation; as a scoping review, this study will  
48 use only published literature. Therefore, research ethic approval is not required. The proposed  
49 scoping review will have the potential to inform research and programs/services that could be  
50 used to improve health and wellbeing of ACB people. Specifically, this review will inform  
51 policy-makers, healthcare providers, clinicians and researchers on substance and illicit drugs  
52 among ACB people. This study will provide evidence that will inform development of strategies  
53 for appropriate intervention, as well as policy and further research. Results will be disseminated  
54 via publications in open access peer-reviewed scientific journals, and presentations at scientific  
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meetings and to the lay public via the media where appropriate. The results from this review will be used to plan future systematic reviews.

### Funding statement

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### Acknowledgments

We thank the medical librarians at Ryerson University, Don Kinder for advising on search strategies and available resources.

### Competing interests statement

None

### Author contributions

The study was conceived by JDJ, HW, NL and WJ. All authors revised the research question and provided content to the design. Manuscript was written and edited by JDJ, HW, NL, NI, MG and WJ. Principal investigator of the study is JDJ. All authors read and approved the final version of the manuscript.

**Table 1: Database search strategy**

#### 1. Ovid Medline Search

	Key term(s)	#Hits
1	exp ALCOHOLS/ or Binge drink*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	621613
2	(illicit adj2 drug*).tw.	9827
3	Marijuana.mp. or exp Cannabis/	22250
4	(Inhalant adj2 nitrite).tw.	40
5	Street Drugs/	10253
6	poppers.tw.	338
7	exp COCAINE/ or exp CRACK COCAINE/	24487
8	(Amphetamines or N-Methyl-3,4- methylenedioxyamphetamine or 3,4-Methylenedioxyamphetamine or Ecstasy or MDMA or MDA).tw.	56092
9	(Psychedelic* or Psychotropic Drugs).tw.	6855
10	exp HEROIN/	5376
11	Opiate*.tw.	23681
12	exp OPIUM/	1961



	Key term(s)	#Hits
13	exp BENZODIAZEPINES/	63290
14	Demerol.tw. or exp Meperidine/	5791
15	(Cigarette* or tobacco).tw.	63819
16	(Psychedelic adj2 drug*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	218
17	(Hallucinogenic adj2 Drug*).mp. or hallucinogens.tw. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	1630
18	Vicodin.tw.	56
19	exp CODEINE/	6561
20	exp FENTANYL/	15005
21	Sedative*.tw.	17745
22	Valium.tw. or exp Diazepam/	17699
23	Xanax.tw. or Alprazolam/	1754
24	Ritalin.tw. or exp Methylphenidate/	6870
25	Adderall.tw.	158
26	(Erectile adj2 dysfunction adj2 drug).tw.	57
27	Viagra.tw. or Sildenafil Citrate/	5335
28	Cialis.tw. or Tadalafil/	1317
29	(Levitra or Vardenafil Dihydrochloride).tw.	101
30	Crystal.tw.	189761
31	(GHB or Gamma-hydroxybutyrate).tw.	2544
32	canada/	85054
33	(Canada or Canad*).tw.	112521
34	(alberta or british columbia or nova scotia or prince edward island or newfoundland or labrador or nunavut or northwest territories or Yukon or Quebec or Saskatchewan or manitoba or Ontario or new brunswick).ti,ab.	60865
35	Caribbean.mp. or exp Caribbean Region/	35105
36	(Black* or Caribbean or African or Immigrant* or immigra* or migration or migrant*).tw.	493685
37	(Black adj2 canadian*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	32
38	Ethnic Groups/ or foreign-born.mp.	59963
39	(new adj2 Canadian).tw.	197
40	(asylum or new comer or refugees or minorit*).tw.	66945
41	racial*.mp.	36734

	Key term(s)	#Hits
42	substance-related disorders/ or alcohol-related disorders/ or amphetamine-related disorders/ or cocaine-related disorders/ or drug overdose/ or heroin dependence/ or inhalant abuse/ or marijuana abuse/ or opioid-related disorders/ or phencyclidine abuse/ or psychoses, substance-induced/ or substance abuse, intravenous/ or substance abuse, oral/ or substance withdrawal syndrome/ or "tobacco use disorder"/ or opioid dependence.mp.	172286
43	Alcoholic Intoxication/	12144
44	exp OPIUM DEPENDENCE/	12
45	exp HEROIN DEPENDENCE/	8793
46	substance addiction.tw.	250
47	(drug adj2 addiction).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	7594
48	(drug adj2 abuse).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	17792
49	exp Inhalant Abuse/	187
50	exp Cocaine Smoking/	6
51	exp Cocaine-Related Disorders/	7724
52	substance addiction.tw.	250
53	drug addiction.mp.	7334
54	exp Prescription Drug Misuse/	11373
55	"substance use disorders".mp.	7809
56	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 or 28 or 29 or 30 or 31	1109799
57	32 or 33 or 34	185044
58	35 or 36 or 37 or 38 or 39 or 40 or 41	622158
59	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	196134
60	56 and 57 and 58	182
61	57 and 58 and 59	132
62	60 or 61	261
63	limit 62 to english language	258
64	limit 63 to (english language and yr="2000 - 2019")	212

## 2. PsycINFO Search strategy

Key Terms	#Hits
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(((Black\* OR Caribbean OR Africa\* OR "Black Canadian" OR black-foreign OR africa-born OR foreign-born OR caribbean-born OR radicalized groups OR ethnic groups OR "Caribbean region" OR "African ancestry" OR "black Caribbean ethnicity") AND (canada OR ab((Canad\* OR Canadian\* OR alberta OR british columbia OR nova scotia OR prince edward island OR newfoundland OR labrador OR nunavut OR northwest territories OR Yukon OR Quebec OR Saskatchewan OR manitoba OR Ontario OR new brunswick))) AND (alcohol OR "illicit drug\*" OR marijuana OR cannabis OR poppers OR "street drug\*" OR cocaine OR "stimulant drug\*" OR amphetamines abuse OR n-methyl-3,4-methylenedioxyamphetamine OR 3,4-methylenedioxyamphetamine OR ecstasy OR hallucinogens OR methylenedioxymethamphetamine OR methylenedioxyamphetamine OR MDMA OR MDA OR psychedelic\* OR psychotropic drug\* OR heroin OR opiate\* OR benzodiazepines OR demerol OR meperidine OR cigarette\* OR tobacco OR "psychedelic drug\*" OR "hallucinogenic drug\*" OR "pain killer\*" OR vicodin OR codeine OR fentanyl OR sedative\* OR valium OR diazepam OR xanax OR alprazolam OR ritalin OR methylphenidate OR party drug\* OR adderall OR "erectile dysfunction drug" OR viagra OR sildenafil citrate OR cialis OR tadalafil OR levitra OR "poly drug" OR crystal OR gamma-hydroxybutyrate OR gamma-hydroxybutyrate OR vardenafil OR "recreation drug\*")) OR ((Black\* OR Caribbean OR Africa\* OR "Black Canadian" OR black-foreign OR africa-born OR foreign-born OR caribbean-born OR radicalized groups OR ethnic groups OR "Caribbean region" OR "African ancestry" OR "black Caribbean ethnicity") AND (canada OR ab((Canad\* OR Canadian\* OR alberta OR british columbia OR nova scotia OR prince edward island OR newfoundland OR labrador OR nunavut OR northwest territories OR Yukon OR Quebec OR Saskatchewan OR manitoba OR Ontario OR new brunswick))) AND ((substance-related disorders) OR (alcohol-related disorders) OR (amphetamine-related disorders) OR (cocaine-related disorders) OR (drug overdose) OR (heroin dependence) OR (inhalant abuse) OR (marijuana abuse) OR (opioid-related disorders) OR (phencyclidine abuse) OR psychoses OR substance-induced OR (substance abuse) OR intravenous OR (drug injection) OR (substance withdrawal syndrome) OR (tobacco use disorder) OR (opioid dependence) OR (Alcoholic Intoxication) OR (opium dependence) OR (heroin dependence) OR (substance addiction) OR (drug abuse) OR (Inhalant Abuse) OR (Cocaine Smoking) OR (Cocaine-Related Disorders) OR (substance addiction) OR (drug addiction) OR "Prescription Drug Misuse" OR "substance use disorders")) AND (la.exact("ENG") AND pd(20000101-20181231))

## CINHAL search strategy

	Key term(s)	# Hits
S67	S64 OR S65 Limiters - Published Date: 20000101-20190131; Exclude MEDLINE records	108
S66	S64 OR S65	336
S65	S46 AND S47 AND S63	300
S64	S35 AND S47 AND S63	102
S63	S48 OR S49 OR S50 OR S51 OR S52 OR S53 OR S54 OR S55 OR S56 OR S57 OR S58 OR S59 OR S60 OR S61 OR S62	221,141
S62	"African*"	39,655
S61	(MH "Africa+")	65,728
S60	"racial groups"	993
S59	(MH "Minority Groups")	9,980
S58	"asylum seekers"	805
S57	(MH "Refugees")	5,726
S56	""foreign-born""	1,482
S55	(MH "Ethnic Groups+")	120,462
S54	""Black canadian*""	36
S53	(MH "Transients and Migrants")	3,742
S52	"immigra*"	21,155
S51	(MH "Immigrants")	12,198
S50	(MH "Blacks") OR "African"	67,751
S49	""Caribbean Region""	159
S48	""Caribbean"" OR (MH "West Indies")	3,710
S47	(MH "Canada") OR (MH "Alberta") OR (MH "British Columbia") OR	87,270

	Key term(s)	# Hits
	(MH "Manitoba") OR (MH "New Brunswick") OR (MH "Newfoundland") OR (MH "Northwest Territories") OR (MH "Nova Scotia") OR (MH "Nunavut") OR (MH "Ontario") OR (MH "Quebec") OR (MH "Saskatchewan") OR (MH "Yukon Territory")	
S46	S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45	149,256
S45	""HEROIN DEPENDENCE""	281
S44	(MH "Inhalant Abuse")	340
S43	""PRESCRIPTION DRUG MISUSE""	279
S42	(MH "Intravenous Drug Users")	1,787
S41	(MH "Substance Abuse+")	56,700
S40	MH "Alcohol-Induced Disorders	670
S39	MH "Alcohol-Induced Disorders	670
S38	(MH "Substance Abuse, Intravenous") OR ""drug abuse""	9,226
S37	""drug addiction""	2,243
S36	(MH "Substance Use Disorders+") OR "substance addiction" OR (MH "Behavior, Addictive+") OR (MH "Substance Use Rehabilitation Programs+") OR (MH "Substance Dependence+")	145,870
S35	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34	151,279
S34	(MH "Analgesics, Opioid+")	29,420

	Key term(s)	# Hits
S33	"recreational drugs"	238
S32	""GHB""	349
S31	""Gamma-hydroxybutyrate""	150
S30	""Crystal""	3,104
S29	(MH "Vardenafil Hydrochloride") OR "Levitra"	99
S28	"Cialis" OR (MH "Tadalafil")	123
S27	"Viagra" OR (MH "Sildenafil")	1,314
S26	""Erectile dysfunction drug""	95
S25	""Adderall""	92
S24	(MH "Methylphenidate") OR ""Ritalin""	2,132
S23	(MH "Methylphenidate")	2,062
S22	(MH "Alprazolam") OR ""Xanax""	332
S21	(MH "Diazepam")	972
S20	""Sedative*""	8,160
S19	(MH "Fentanyl+")	4,125
S18	(MH "Codeine+") OR (MH "Oxycodone")	2,217
S17	""Vicodin""	37
S16	""Hallucinogenic Drug*""	40
S15	(MH "Hallucinogens+")	1,587
S14	(MH "Street Drugs+") OR (MH "Drugs, Non-Prescription") OR ""Psychedelic drug*""	9,003
S13	(MH "Meperidine") OR "Demerol"	764
S12	(MH "Antianxiety Agents, Benzodiazepine+")	8,068

	Key term(s)	# Hits
S11	(MH "Opium+")	14,137
S10	(MH "Narcotics") OR (MH "Naloxone") OR "Opiate*"	14,104
S9	(MH "Heroin")	2,525
S8	(MH "Psychotropic Drugs+")	48,984
S7	(MH "Amphetamines+") OR (MH "Amphetamine+") OR (MH "Phenethylamines+") OR (MH "Methylenedioxymethamphetamine")	9,113
S6	(MH "Cocaine+") OR (MH "Crack Cocaine")	4,149
S5	"poppers"	85
S4	(MH "Cannabis") OR "Marijuana"	10,743
S3	(MH "Drugs, Off-Label") OR (MH "Drugs, Non-Prescription") OR (MH "Street Drugs+")	10,368
S2	"party drugs"	25
S1	(MH "Alcohols+")	32,901

**Table 2. Web-based Search Strategy: Google search engine**

No.	Search Term	# of Hits
1	Illicit drugs or substance abuse or substance use	TBD
2	Blacks or Caribbean or African	TBD
3	Canada	TBD
4	#1 and #2 and #3 First 5-pages of the Web-based search Limitation: 1. English 2. 2000-present	TBD

**Table 3: Inclusion criteria**

Eligibility checklist	
<b>Inclusion Criteria</b>	
Language: English	
Country: Canada	
Population: African, Caribbean and Blacks	
Intervention: Study examines at least one of the following: illicit drugs or substance use/abuse, poly drug use, co-morbidities with substance use/abuse	
<b>Exclusion Criteria</b>	
Article aims to describe normal prescription drug use	

For peer review only



**Table 4: Data extraction form**

Study author
Year
Purpose
Design
Methodology (population data analysis, interview; groups; survey; questionnaire; intervention)
Population gender
Population category (youth, adult)
Illicit drug/ Substance use name
Substance-induced disorders
Social impact of substance use
Type of substance use disorder: stimulant, depressant, hallucinogen, opioids, inhalants, cannabis, alcohol, tobacco
Drivers of substance use/abuse
Main findings
Limitations
Conclusion

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# BMJ Open

## Substance use disorders among African Caribbean and Black (ACB) people in Canada: A scoping review protocol

Journal:	<i>BMJ Open</i>
Manuscript ID	bmjopen-2019-028985.R1
Article Type:	Protocol
Date Submitted by the Author:	09-Apr-2019
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<b>Primary Subject Heading</b>:	Addiction
Secondary Subject Heading:	Public health, Smoking and tobacco
Keywords:	MENTAL HEALTH, PUBLIC HEALTH, EPIDEMIOLOGY, Substance use, substance use, drug abuse

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Manuscripts

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2  
3 1 **Substance use disorders among African Caribbean and Black (ACB) people in Canada:**  
4 2 **A scoping review protocol**

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38 27 **Key words:** Substance use disorders, African, Caribbean, Black, Canada

39  
40 28 **Word count:**2214

## 29 **Abstract**

### 30 **Introduction**

31 Previous research demonstrated that substance use continues to be one of the most complex and  
32 prevalent problems among ACB people. A number of studies were conducted to characterize  
33 substance use patterns in this population. In Canada, no reviews have been conducted on this topic  
34 or are currently underway.

35 This scoping review seeks to answer the following research questions:

- 36 1) What characterizes substance use disorders among ACB people in Canada?
  - 37 • What are the different types and prevalence of substance use among ACB people  
38 in Canada?
  - 39 • Do ACB people in Canada use more than one substance?
  - 40 • What factors are associated with substance use among ACB people in Canada?
- 41 2) What are the health and social impacts of substance use in ACB people in Canada?

### 42 **Methods and analyses**

43 This study will use the methodological framework for scoping reviews developed by Arksey and  
44 O'Malley. We will search electronic bibliographic databases including Ovid MEDLINE,  
45 PsychINFO and CINAHL. We will limit our search to English articles published between 2000 to  
46 2019. In addition, we will conduct a grey literature search. Two investigators will independently  
47 screen citations and full-text articles. Our findings will be reported according to the Preferred  
48 Reporting Items for Systematic Reviews and Meta-Analysis for Scoping Reviews (PRISMA-ScR)  
49 guidelines. We will provide a descriptive summary of the studies and summarize the findings with  
50 respect to the outcomes and report any gaps that might require further investigation.

### 51 **Ethics and dissemination**

52 Our proposed study does not involve human participants; therefore, research ethics approval is not  
53 required. This study will provide evidence that will inform the development of strategies for  
54 appropriate interventions, as well as policy and further research. The results will be disseminated  
55 through publications in open access peer-reviewed journals, presentations at scientific meetings  
56 and to the lay public.

### 57 **Strengths and limitations**

- 58 • Our search strategy is very comprehensive, as it was developed with a team that has  
59 extensive experience with literature search and was reviewed in consultation with a  
60 medical research librarian.
- 61 • Our review uses a rigorous scoping review methodology and includes all types of study  
62 designs such as cohort, cross sectional, systematic reviews, text and opinion.
- 63 • Our source of literature is expansive, as it includes three databases that cover our research  
64 questions as well as grey literature.
- 65 • This study is limited only to Canadian context and the findings will only be relevant to  
66 Canada.
- 67 • Another limitation of our study is the inclusion of literature published only in the English  
68 language.

## 70 Background

71 In Western countries, racialized minorities are more likely to face structural and social stressors  
72 that lead to health disparities and exacerbate poor health status.<sup>1 2</sup> African Caribbean and Black  
73 (ACB) people, especially those who are immigrants and refugees, experience a myriad of  
74 challenges and problems such as language barriers, exclusive immigration policies,  
75 unemployment, poverty, lack of access to health care, discrimination and racism.<sup>3</sup> Research  
76 confirms that social inequities, systemic racial discrimination, sexism, poverty and marginalization  
77 contribute to the compromised mental health among racialized people.<sup>4</sup> Evidence also indicates  
78 that some marginalized ACB people turn to substance use as a coping strategy to overcome  
79 cumulative hardship and stressful life conditions.<sup>5</sup> Depending on different factors such as the type  
80 of drugs used, doses, frequency, and pre-existing health conditions, drug use can have various  
81 short and long-term health and social effects such as heart attack, crime, stroke, health care  
82 spending, drug dependence, change in blood pressure, violence, HIV/AIDS, HCV, mental health  
83 issues, overdose, and ultimately death.<sup>6 7</sup>

84 In 2015, about 13% of Canadians reported smoking cigarettes and 13% used illicit drugs  
85 (including cannabis, cocaine or crack, ecstasy, speed or methamphetamines, hallucinogens or  
86 heroin).<sup>8</sup> In the same year, Canadians also reported psychoactive pharmaceuticals use (22%) and  
87 abuse (3%) and 77% reported alcohol use<sup>8</sup>. Furthermore, it is important to note that 10% of  
88 Canadians aged 15 years or older reported symptoms that met the eligibility criteria for mental  
89 health or substance use disorders, which includes: alcohol abuse or dependence, cannabis abuse or  
90 dependence, other drug abuse or dependence, a major depressive episode, bipolar disorder and  
91 generalized anxiety disorder.<sup>9</sup>

92 According to the 2016 Canadian census, 1,198,545 people self-identified as Black, representing  
93 3.5% of Canada's total population and 16% of the total visible minority population. The Black  
94 population is younger than the general Canadian population. In 2016, the median age of the Black  
95 population was 29.6, in contrast to 40.7 years for the general population. Among Blacks, children  
96 under 15 years old and adults 65 years and older represented 26.6% and 7.3% respectively. About  
97 37% of the Black population in Canada lives in Toronto.<sup>10</sup> Like other Canadians, ACB people have  
98 a reported history of substance use. Data derived from multiple cycles (2005–2011) of the  
99 Canadian Community Health Survey-Mental Health (CCHS-MH) in Ontario showed that 40 % of  
100 Caribbean and 18% of African adults reported lifetime cannabis usage; also, 23% of Caribbean  
101 and 9% of African adults have reported using cannabis in the past year.<sup>11</sup> The prevalence of  
102 problematic use of cannabis (moderate/high score of 8 or more) on the Alcohol, Smoking and  
103 Substance Involvement Screening Tool-Cannabis Involvement Score (ASSIST-CIS) was 8% for  
104 Caribbean and 4% for African adults.<sup>11</sup> In a community-based study of party drug use among  
105 ethno-racially diverse gay and bisexual men (Asian, Caribbean, Latino, Aboriginal, Mixed and  
106 others) in Toronto, participants reported regular use of ecstasy, cannabis, ketamine, and cocaine<sup>12</sup>.  
107 In the same study, 43% of participants were polydrug users and almost all participants reported  
108 engaging in sex while they were on drugs.<sup>12</sup> For women, data from the Canadian HIV Women's  
109 Sexual and Reproductive Health Cohort Study reported various types of drug users. Among  
110 participants who self-identified as African, Caribbean and Black, 5% used tobacco, 41% drank  
111 alcohol, 5% were 'socially acceptable' poly-substance users, 4% were illicit poly-substance users,  
112 and 3% were illicit poly-substance users of all types.<sup>13</sup>

113 Substance use is associated with an increased risk of developing a mental disorder, utilization of  
114 emergency rooms and can have a severe impact not only on individuals, but also on those closest  
115 to them, and society in general. Population-based data from the Ontario HIV Treatment Network

1  
2  
3 116 reported recreation drug use (RDU) (16%) and co-occurring RDU and depression (34%) among  
4 117 heterosexual individuals. Among different ethnic groups (African, Caribbean, Asian or Latino),  
5 118 14% reported RDU and 12% reported co-occurring RDU and depression.<sup>14</sup> Moreover, RDU-only  
6 119 or co-occurring depression and RDU were associated with increased incidence of emergency  
7 120 department (ED) visits.<sup>14</sup> In a previous observational study, it was showed that opioid poisonings  
8 121 led to 16 hospitalizations per day in Canada.<sup>15</sup> In the same study, it was found that substance use  
9 122 also increased Emergency Department (ED) visits. Over the last five years, heroin or synthetic  
10 123 opioid poisonings increased the number of ED visits by 10-fold in Alberta, whereas in Ontario,  
11 124 ED visits increased four-fold and doubled due to heroin and synthetic opioid poisonings  
12 125 respectively.<sup>15</sup> A study investigating substance use and intimate partner violence (IPV) showed  
13 126 that cocaine use was associated with IPV among Black men who have sex with men.<sup>16</sup> Moreover,  
14 127 a considerable amount of crime has been attributed to substance use and a significant association  
15 128 between substance misuse and crime exists.<sup>17</sup> In several studies, it was demonstrated that alcohol  
16 129 can significantly increase the risk of sexual assault.<sup>18</sup> A cross sectional study investigating  
17 130 predictors of sexual assault found that the number of sexual assaults committed by African  
18 131 American and Caucasian men were associated with alcohol problems.<sup>19</sup> Also, the relationship  
19 132 between driver blood alcohol concentration (BAC) and involvement in motor crash is well  
20 133 documented. Previous studies have reported that higher BACs significantly increase the likelihood  
21 134 of drivers to be involved in crashes.<sup>20</sup> Substance use also increases risky sexual behaviour and the  
22 135 risk of HIV acquisition. Evidence from a Canadian study showed that ACB women reported  
23 136 having sex under alcohol, substance use and drug influence; 2% had shared drug use equipment  
24 137 and 27% had ever mixed sex with drugs or alcohol and 44% of ACB men reported that they had  
25 138 engaged in sex while using drugs or alcohol.<sup>21</sup>  
26 139 ACB in Canada experience different challenges that increase their vulnerability to use substances.  
27 140 An initial search of the topic in PubMed, The JBI Database of Systematic Reviews and  
28 141 Implementation Reports and PROSPERO did not identify previous reviews or any review  
29 142 currently underway. There is a need to characterize substance use disorders among this population.  
30 143 The proposed scoping review aims to explore the available research evidence regarding common  
31 144 substance use disorders by ACB people in Canada as well as their health and social impacts.

## 32 145 **Methods and Analysis**

### 33 146 **Patient and public involvement**

34 147 Patients are not involved in the design of this scoping review study.

### 35 148 **Scoping review**

36 149 We will conduct a search of all research designs and types of publications, as well as grey literature  
37 150 and reports. The review will adhere to the Preferred Reporting Items for Systematic Reviews and  
38 151 Meta-Analysis Protocols (PRISMA-P) guidelines, including search strategy, selection criteria,  
39 152 data extraction, and data analysis<sup>22</sup>. Furthermore, the review will be conducted using the  
40 153 methodological framework for scoping reviews proposed by Arksey and O'Malley<sup>23</sup>. The  
41 154 framework recommends the following six steps: 1) Identifying the research question, 2)  
42 155 Identifying relevant studies, 3) Study selection, 4) Charting the data, 5) Collating, summarising  
43 156 and reporting the results, 6) Consultation. The review will be reported according to PRISMA-ScR  
44 157 guidelines and a checklist will be completed.<sup>24</sup> Our scoping review was initiated on 1 December  
45 158 2018 and is to be completed by 30 August 2019.



### Step 1: identifying the research question

The following research questions of the scoping review were identified:

- 1) What characterizes substance use disorders among ACB people in Canada?
  - What are the different types and prevalence of substance use among ACB people in Canada?
  - Do ACB people in Canada use more than one substance?
  - What are the factors associated with substance use among ACB people in Canada?
- 2) What are the health and social impacts of substance use among ACB people in Canada?

The following PICO was formulated:

- 1) Population: Canadian ACB people
- 2) Intervention: Study examines substance use
- 3) Comparison: Other ethnic groups if provided
- 4) Outcomes:
  - Types of substance use disorders
  - Prevalence of substance use disorders and poly drugs use
  - Health impact of substance use
  - Social impact of substance use
  - Factors associated with substance use

### Step 2: identifying relevant studies

In order to address the objectives of the review, an Internet-based search of published and grey literature will be conducted using electronic databases and Google. Also, we will search the website of key organizations, such as Health Canada, Statistics Canada, and the Canadian Centre on Substance Use and Addiction. For each individual database, our search strategy will combine Medical Subject Headings (MeSH) and 'free-text' terms in conjunction with the Boolean operators "and" and "or". We will conduct searches in relevant electronic databases: Ovid MEDLINE, PsycINFO and CINHALL.

Our search will be limited to English language publications. Only studies published between 2000 to 2019 will be included in this review. Our search strategy is described in Table 1, 2 and 3. Also, we will check reference lists of included studies to identify any additional relevant articles that were not captured by our search strategy.

### Step 3: Study selection

We will use Endnote 9 (Clarivate Analytics), a citation management software program, to manage references and remove duplicates. To facilitate study screening and selection, all citations obtained using the search strategy will be imported into Rayyan, a web and mobile application for systematic reviews.<sup>25</sup> Study selection will proceed according to the stages described below.

**Stage 1:** A customized form reflecting the inclusion criteria in Table 4 will be pilot tested by two reviewers. Specifically, a screening form will be developed and will be applied by two reviewers independently to a sample of 5% abstracts to ensure consistency of use and clarity of the instrument. A Cohen's kappa statistic<sup>26</sup> will be estimated to measure inter-rater reliability, and screening will begin when >60% agreement is achieved.

**Stage 2:** Assessment of studies for inclusion

#### *Inclusion criteria*

To be included in this study a reference should meet the following criteria:

- 1) Population: Canadian ACB people
- 2) Intervention: Study examines substance use
- 3) Comparison: Other ethnic groups if provided
- 4) Outcomes-Study examines at least one of the following:
  - Types of substance use disorders
  - Prevalence of substance use disorders and poly drugs use
  - Health impact of substance use
  - Social impact of substance use
  - Factors associated with substance use

All titles and abstracts identified from the electronic database search will be reviewed independently by two reviewers. Differences in opinion will be resolved by consensus. Discussion with a third author will take place in situations where consensus cannot be reached. In cases where abstracts are not provided, are unclear, or there is any other reason for uncertainty, the full article will be obtained before making a decision regarding eligibility for inclusion. The full text of all potentially relevant articles will be obtained and will be reviewed using the inclusion criteria defined above.

#### **Exclusion criteria**

Articles that describe normal prescription drug use.

#### **Step 4: charting the data**

Eligible studies will be extracted using a pre-designed data extraction form. The data extraction form will be pilot tested with a sample of 5 studies to ensure clarity and consistency. We will extract basic study information like first author, title, purpose, year of publication and province. In addition, we will extract information about the population, method, age, type of substance use, poly drug use, impact of drug use, findings and limitations of the study (Table 5).

#### **Step 5: collating, summarising and reporting the results**

Rather than provide a quantitative synthesis of literature, as is typically the use of systematic reviews, this scoping review aims to summarise a wide range of findings regarding substance use disorders among ACB people in Canada<sup>27</sup>. Therefore, we will provide a descriptive summary of the gathered articles including peer-reviewed articles, text, opinion or systematic reviews. The descriptive summary will contain the characteristics of included studies, such as the overall number of studies, types of study design, years of publication, characteristics of the study populations, and provinces where studies were conducted. In addition, we will summarize the study findings with respect to the outcomes and report any gaps that might require further investigation. Our synthesis will inform whether ACB people in Canada experience disorders related to alcohol, tobacco, stimulants, depressants, hallucinogens, opioids, or cannabis. Also, our synthesis will inform whether ACB people in Canada use more than one drug at a time and, the health and social impacts of substance use.

#### **Step 6: consultation**

Neither patients nor public will be involved.

#### **Ethics and dissemination**

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3 242 Our proposed study does not involve human participation. As a scoping review, this study will use  
4 243 only published literature. Therefore, research ethics approval is not required. Results will be  
5 244 disseminated through publications in open access peer-reviewed scientific journals, presentations  
6 245 at scientific meetings and presentations to the lay public through the media where appropriate. The  
7 246 results from this review will be used to plan future systematic reviews.  
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## 247 Discussion and conclusion

248 The proposed scoping review will have the potential to inform research, programs and services  
249 that could be used to improve the health and wellbeing of ACB people in Canada. Specifically,  
250 this review will inform policy-makers, healthcare providers, clinicians and researchers on  
251 substance use among Canadian ACB people.

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256 strategies and available resources.

## 257 Competing interests

258 Not declared

## 259 Author contributions

260 **Conception of the study:** Nguemo D. Joseph (NDJ), Husbands Winston (HW), Nelson Laron  
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## 270 Table 1: Database search strategy

### 271 1. Ovid Medline Search

	Key term	#Hits
1	exp ALCOHOLS/ or Binge drink*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	621613
2	(illicit adj2 drug*).tw.	9827
3	Marijuana.mp. or exp Cannabis/	22250
4	(Inhalant adj2 nitrite).tw.	40
5	Street Drugs/	10253
6	poppers.tw.	338
7	exp COCAINE/ or exp CRACK COCAINE/	24487
8	(Amphetamines or N-Methyl-3,4- methylenedioxyamphetamine or 3,4-Methylenedioxyamphetamine or Ecstasy or MDMA or MDA).tw.	56092
9	(Psychedelic* or Psychotropic Drugs).tw.	6855

	Key term	#Hits
10	exp HEROIN/	5376
11	Opiate*.tw.	23681
12	exp OPIUM/	1961
13	exp BENZODIAZEPINES/	63290
14	Demerol.tw. or exp Meperidine/	5791
15	(Cigarette* or tobacco).tw.	63819
16	(Psychedelic adj2 drug*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	218
17	(Hallucinogenic adj2 Drug*).mp. or hallucinogens.tw. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	1630
18	Vicodin.tw.	56
19	exp CODEINE/	6561
20	exp FENTANYL/	15005
21	Sedative*.tw.	17745
22	Valium.tw. or exp Diazepam/	17699
23	Xanax.tw. or Alprazolam/	1754
24	Ritalin.tw. or exp Methylphenidate/	6870
25	Adderall.tw.	158
26	(Erectile adj2 dysfunction adj2 drug).tw.	57
27	Viagra.tw. or Sildenafil Citrate/	5335
28	Cialis.tw. or Tadalafil/	1317
29	(Levitra or Vardenafil Dihydrochloride).tw.	101
30	Crystal.tw.	189761
31	(GHB or Gamma-hydroxybutyrate).tw.	2544
32	canada/	85054
33	(Canada or Canad*).tw.	112521
34	(alberta or british columbia or nova scotia or prince edward island or newfoundland or labrador or nunavut or northwest territories or Yukon or Quebec or Saskatchewan or manitoba or Ontario or new brunswick).ti,ab.	60865
35	Caribbean.mp. or exp Caribbean Region/	35105
36	(Black* or Caribbean or African or Immigrant* or immigra* or migration or migrant*).tw.	493685
37	(Black adj2 canadian*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	32
38	Ethnic Groups/ or foreign-born.mp.	59963
39	(new adj2 Canadian).tw.	197

Key term	#Hits
40 (asylum or new comer or refugees or minorit*).tw.	66945
41 racial*.mp.	36734
42 substance-related disorders/ or alcohol-related disorders/ or amphetamine-related disorders/ or cocaine-related disorders/ or drug overdose/ or heroin dependence/ or inhalant abuse/ or marijuana abuse/ or opioid-related disorders/ or phencyclidine abuse/ or psychoses, substance-induced/ or substance abuse, intravenous/ or substance abuse, oral/ or substance withdrawal syndrome/ or "tobacco use disorder"/ or opioid dependence.mp.	172286
43 Alcoholic Intoxication/	12144
44 exp OPIUM DEPENDENCE/	12
45 exp HEROIN DEPENDENCE/	8793
46 substance addiction.tw.	250
47 (drug adj2 addiction).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	7594
48 (drug adj2 abuse).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	17792
49 exp Inhalant Abuse/	187
50 exp Cocaine Smoking/	6
51 exp Cocaine-Related Disorders/	7724
52 substance addiction.tw.	250
53 drug addiction.mp.	7334
54 exp Prescription Drug Misuse/	11373
55 "substance use disorders".mp.	7809
56 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 or 28 or 29 or 30 or 31	1109799
57 32 or 33 or 34	185044
58 35 or 36 or 37 or 38 or 39 or 40 or 41	622158
59 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	196134
60 56 and 57 and 58	182
61 57 and 58 and 59	132
62 60 or 61	261
63 limit 62 to english language	258
64 limit 63 to (english language and yr="2000 - 2019")	212

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## 2. PsycINFO Search strategy

Key Terms	#Hits
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(Black\* OR Caribbean OR Africa\* OR "Black Canadian" OR black-foreign OR 321  
 africa-born OR foreign-born OR caribbean-born OR radicalized groups OR  
 ethnic groups OR "Caribbean region" OR "African ancestry" OR "black  
 Caribbean ethnicity") AND (canada OR ab(Canad\* OR Canadian\* OR alberta  
 OR british columbia OR nova scotia OR prince edward island OR  
 newfoundland OR labrador OR nunavut OR northwest territories OR Yukon  
 OR Quebec OR Saskatchewan OR manitoba OR Ontario OR new brunswick))  
 AND (alcohol OR "illicit drug\*" OR marijuana OR cannabis OR poppers OR  
 "street drug\*" OR cocaine OR "stimulant drug\*" OR amphetamines abuse OR  
 n-methyl-3,4-methylenedioxyamphetamine OR 3,4-  
 methylenedioxyamphetamine OR ecstasy OR hallucinogens OR  
 methylenedioxymethamphetamine OR methylenedioxyamphetamine OR  
 MDMA OR MDA OR psychedelic\* OR psychotropic drug\* OR heroin OR  
 opiate\* OR benzodiazepines OR demerol OR meperidine OR cigarette\* OR  
 tobacco OR "psychedelic drug\*" OR "hallucinogenic drug\*" OR "pain killer\*"  
 OR vicodin OR codeine OR fentanyl OR sedative\* OR valium OR diazepam  
 OR xanax OR alprazolam OR ritalin OR methylphenidate OR party drug\* OR  
 adderall OR "erectile dysfunction drug" OR viagra OR sildenafil citrate OR  
 cialis OR tadalafil OR levitra OR "poly drug" OR crystal OR gamma-  
 hydroxybutyrate OR gamma-hydroxybutyrate OR vardenafil OR "recreation  
 drug\*" or (substance-related disorders) OR (alcohol-related disorders) OR  
 (amphetamine-related disorders) OR (cocaine-related disorders) OR (drug  
 overdose) OR (heroin dependence) OR (inhalant abuse) OR (marijuana abuse)  
 OR (opioid-related disorders) OR (phencyclidine abuse) OR psychoses OR  
 substance-induced OR (substance abuse) OR intravenous OR (drug injection)  
 OR (substance withdrawal syndrome) OR (tobacco use disorder) OR (opioid  
 dependence) OR (Alcoholic Intoxication) OR (opium dependence) OR (heroin  
 dependence) OR (substance addiction) OR (drug abuse) OR (Inhalant Abuse)  
 OR (Cocaine Smoking) OR (Cocaine-Related Disorders) OR (substance  
 addiction) OR (drug addiction) OR "Prescription Drug Misuse" OR  
 "substance use disorders") Limits: English, 2000-01-01 - 2019-04-05

## 273 CINHAL search strategy

	Key term	# Hits
S67	S64 OR S65 Limiters - Published Date: 20000101-20190131; Exclude MEDLINE records	108
S66	S64 OR S65	336
S65	S46 AND S47 AND S63	300
S64	S35 AND S47 AND S63	102
S63	S48 OR S49 OR S50 OR S51 OR S52 OR S53 OR S54 OR S55 OR S56 OR	221,141

	Key term	# Hits
	S57 OR S58 OR S59 OR S60 OR S61 OR S62	
S62	"African*"	39,655
S61	(MH "Africa+")	65,728
S60	"racial groups"	993
S59	(MH "Minority Groups")	9,980
S58	"asylum seekers"	805
S57	(MH "Refugees")	5,726
S56	""foreign-born""	1,482
S55	(MH "Ethnic Groups+")	120,462
S54	""Black canadian*""	36
S53	(MH "Transients and Migrants")	3,742
S52	"immigra*"	21,155
S51	(MH "Immigrants")	12,198
S50	(MH "Blacks") OR "African"	67,751
S49	""Caribbean Region""	159
S48	""Caribbean"" OR (MH "West Indies")	3,710
S47	(MH "Canada") OR (MH "Alberta") OR (MH "British Columbia") OR (MH "Manitoba") OR (MH "New Brunswick") OR (MH "Newfoundland") OR (MH "Northwest Territories") OR (MH "Nova Scotia") OR (MH "Nunavut") OR (MH "Ontario") OR (MH "Quebec") OR (MH "Saskatchewan") OR (MH "Yukon Territory")	87,270
S46	S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45	149,256



	Key term	# Hits
S45	""HEROIN DEPENDENCE""	281
S44	(MH "Inhalant Abuse")	340
S43	""PRESCRIPTION DRUG MISUSE""	279
S42	(MH "Intravenous Drug Users")	1,787
S41	(MH "Substance Abuse+")	56,700
S40	MH "Alcohol-Induced Disorders	670
S39	MH "Alcohol-Induced Disorders	670
S38	(MH "Substance Abuse, Intravenous") OR ""drug abuse""	9,226
S37	""drug addiction""	2,243
S36	(MH "Substance Use Disorders+") OR "substance addiction" OR (MH "Behavior, Addictive+") OR (MH "Substance Use Rehabilitation Programs+") OR (MH "Substance Dependence+")	145,870
S35	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34	151,279
S34	(MH "Analgesics, Opioid+")	29,420
S33	"recreational drugs"	238
S32	""GHB""	349
S31	""Gamma-hydroxybutyrate""	150
S30	""Crystal""	3,104
S29	(MH "Vardenafil Hydrochloride") OR "Levitra"	99
S28	"Cialis" OR (MH "Tadalafil")	123

	Key term	# Hits
S27	"Viagra" OR (MH "Sildenafil")	1,314
S26	""Erectile dysfunction drug""	95
S25	""Adderall""	92
S24	(MH "Methylphenidate") OR ""Ritalin""	2,132
S23	(MH "Methylphenidate")	2,062
S22	(MH "Alprazolam") OR ""Xanax""	332
S21	(MH "Diazepam")	972
S20	""Sedative*""	8,160
S19	(MH "Fentanyl+")	4,125
S18	(MH "Codeine+") OR (MH "Oxycodone")	2,217
S17	""Vicodin""	37
S16	""Hallucinogenic Drug*""	40
S15	(MH "Hallucinogens+")	1,587
S14	(MH "Street Drugs+") OR (MH "Drugs, Non-Prescription") OR ""Psychedelic drug*""	9,003
S13	(MH "Meperidine") OR "Demerol"	764
S12	(MH "Antianxiety Agents, Benzodiazepine+")	8,068
S11	(MH "Opium+")	14,137
S10	(MH "Narcotics") OR (MH "Naloxone") OR "Opiate*"	14,104
S9	(MH "Heroin")	2,525
S8	(MH "Psychotropic Drugs+")	48,984
S7	(MH "Amphetamines+") OR (MH "Amphetamine+") OR (MH	9,113

	Key term	# Hits
	"Phenethylamines+") OR (MH "Methylenedioxymethamphetamine")	
S6	(MH "Cocaine+") OR (MH "Crack Cocaine")	4,149
S5	"poppers"	85
S4	(MH "Cannabis") OR "Marijuana"	10,743
S3	(MH "Drugs, Off-Label") OR (MH "Drugs, Non-Prescription") OR (MH "Street Drugs+")	10,368
S2	"party drugs"	25
S1	(MH "Alcohols+")	32,901

274 **Table 2. Web-based Search Strategy: Google search engine**

No.	Search Term	# of Hits
1	Substance abuse or substance use or or name of substance e.g alcohol, cannabis, poppers	TBD
2	Blacks or Caribbean or African	TBD
3	Canada	TBD
4	#1 and #2 and #3 First 5-pages of the Web-based search will be reviewed Limitation: 1. English 2. 2000-present	TBD

275 **Table 3: Health Canada, Statistic Canada and the Canadian Centre on substance use and**  
276 **addiction search strategy**

No.	Search Term	# of Hits
1	Substance abuse or substance use or name of substance e.g alcohol, cannabis, poppers, etc. And African or Caribbean or Blacks	TBD
2	Limitation: 1. English 2. 2000-present	TBD

No.	Search Term	# of Hits

277 **Table 4: Inclusion criteria**

Eligibility checklist
<b>Inclusion Criteria</b>
Population: Canadian ACB male and female
Intervention: Study examines at least one of the following: substance use
Comparison: Other ethnic groups if provided
Outcomes: at least one of the following <ul style="list-style-type: none"> <li>• Types of substance use disorders</li> <li>• Prevalence of substance use or poly drugs use</li> <li>• Factors associated with substance use</li> <li>• Health impact of substance use</li> <li>• Social impact of substance use</li> </ul>
<b>Exclusion Criteria</b>
Article describes normal prescription drug use

278 **Table 5: Data extraction form**

Study author
Title
Year
Province
Purpose
Design
Method
Sample size
Population gender (M/F)
Comparator if applicable
Age (youth: 16 – 25 year; adult > 25 year)
Outcomes <ul style="list-style-type: none"> <li>*Type of substance use disorders (stimulant, depressant, hallucinogen, opioids, inhalants, cannabis, alcohol, tobacco)</li> <li>*Prevalence of substance use and poly drugs use</li> <li>*Associated factors of substance use</li> <li>*Social impact</li> <li>*Health impact</li> </ul>
Main findings
Limitations
Conclusion

279

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**PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol\***

Section and topic	Item No	Checklist item	Location in Document
<b>ADMINISTRATIVE INFORMATION</b>			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	Page 1, Line 2
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	Not applicable
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	Not applicable
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	Page 1, Line 3-26
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	Page 7, Line 259-269
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	Not applicable
Support:			
Sources	5a	Indicate sources of financial or other support for the review	Page 7, Line 253
Sponsor	5b	Provide name for the review funder and/or sponsor	Page 7, Line 253
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	Not applicable
<b>INTRODUCTION</b>			
Rationale	6	Describe the rationale for the review in the context of what is already known	Page 3-4, Line 70-142
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	Page 4-5, Line 160-166; Line 168-176 (PICO)
<b>METHODS</b>			
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	Page 4, Line 149-150 Page 5, Line 185-186 Page 5-6, Line 201-210

Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	Page 5, Line 178-184; Line 187-188
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	Page 7-14, Line 270-276
Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	Page 5, Line 190-193
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	Page 5-6, Line 194-217
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	Page 6, Line 221-222
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	Page 6, Line 223-225. Page 15; Line 278 (Table 5)
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	Page 5-6, Line 171-176 (PICO outcomes). Page 15, Line 278 (Table 5)
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	Not applicable
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	Not applicable (scoping review)
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as $I^2$ , Kendall's $\tau$ )	Not applicable (scoping review)
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	Not applicable (scoping review)
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	Page 6, Line 227-235
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	Not applicable (scoping review)
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	Not applicable (scoping review)

**\* It is strongly recommended that this checklist be read in conjunction with the PRISMA-P Explanation and Elaboration (cite when available) for important clarification on the items. Amendments to a review protocol should be tracked and dated. The copyright for PRISMA-P (including checklist) is held by the PRISMA-P Group and is distributed under a Creative Commons Attribution Licence 4.0.**



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*From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.*

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# BMJ Open

## Substance use disorders among African Caribbean and Black (ACB) people in Canada: A scoping review protocol

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Manuscripts

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3 **1 Substance use disorders among African Caribbean and Black (ACB) people in Canada:**  
4 **2 A scoping review protocol**  
5

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38 **27 Key words:** Substance use disorders, African, Caribbean, Black, Canada  
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40 **28 Word count:** 1977  
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## 29 **Abstract**

### 30 **Introduction**

31 Previous research demonstrated that substance use continues to be one of the most complex and  
32 prevalent problems among ACB (African, Caribbean and Black) people. A number of studies were  
33 conducted to characterize substance use patterns in this population. To our knowledge, this is the  
34 first known review in Canada characterizing substance use disorders on ACB people.

35 This scoping review seeks to answer the following research questions: What characterizes  
36 substance use disorders among ACB people in Canada? What are the different types and  
37 prevalence of substance use among ACB people in Canada? Do ACB people in Canada use more  
38 than one substance? What factors are associated with substance use among ACB people in  
39 Canada? What are the health and social impacts of substance use in ACB people in Canada?

### 40 **Methods and analyses**

41 This study will use the methodological framework for scoping reviews developed by Arksey and  
42 O'Malley. We will search electronic bibliographic databases including Ovid MEDLINE,  
43 PsychINFO and CINAHL. We will limit our search to English articles published between 2000 to  
44 2019. In addition, we will conduct a grey literature search. Two investigators will independently  
45 screen citations and full-text articles. Our findings will be reported according to the Preferred  
46 Reporting Items for Systematic Reviews and Meta-Analysis for Scoping Reviews (PRISMA-ScR)  
47 guidelines. We will provide a descriptive summary of the studies and summarize the findings with  
48 respect to the outcomes and report any gaps that might require further investigation.

### 49 **Ethics and dissemination**

50 Our proposed study does not involve human participants; therefore, research ethics approval is not  
51 required. This study will provide evidence that will inform the development of strategies for  
52 appropriate interventions, as well as policy and further research. The results will be disseminated  
53 through publications in open access peer-reviewed journals, presentations at scientific meetings  
54 and to the lay public.

### 55 **Strengths and limitations**

- 56 • Our search strategy is very comprehensive, as it was developed with a team that has  
57 extensive experience with literature search and was reviewed in consultation with a  
58 medical research librarian.
- 59 • Our review uses a rigorous scoping review methodology and includes all types of study  
60 designs such as cohort, cross sectional, systematic reviews, text and opinion.
- 61 • Our source of literature is expansive, as it includes three databases that cover our research  
62 questions as well as grey literature.
- 63 • This study is limited only to Canadian context and the findings will only be relevant to  
64 Canada.
- 65 • Another limitation of our study is the inclusion of literature published only in the English  
66 language.

## 68 **Background**

69 According to the 2016 Canadian census, 1,198,545 people self-identified as Black, representing  
70 3.5% of Canada's total population and 16% of the total visible minority population. About 37% of  
71 the Black population in Canada lives in Toronto.<sup>1</sup> In Western countries, racialized minorities are  
72 more likely to face structural and social stressors that lead to health disparities and exacerbate poor  
73 health status.<sup>2,3</sup> African, Caribbean and Black (ACB) people, especially those who are immigrants  
74 and refugees, experience a myriad of challenges and problems such as language barriers, exclusive  
75 immigration policies, unemployment, poverty, lack of access to health care, discrimination and  
76 racism.<sup>4</sup> Research confirms that social inequities, systemic racial discrimination, sexism, poverty  
77 and marginalization contribute to the compromised mental health among racialized people.<sup>5</sup>  
78 Evidence also indicates that some marginalized ACB people turn to substance use as a coping  
79 strategy to overcome cumulative hardship and stressful life conditions.<sup>6</sup> Depending on different  
80 factors such as the type of drugs used, doses, frequency, and pre-existing health conditions, drug  
81 use can have various short and long-term health and social effects such as heart attack, crime,  
82 stroke, health care spending, drug dependence, change in blood pressure, violence, HIV/AIDS,  
83 HCV, mental health issues, overdose, and ultimately death.<sup>7,8</sup>

84 Like other Canadians, ACB people have a reported history of substance use. Data derived from  
85 multiple cycles (2005–2011) of the Canadian Community Health Survey-Mental Health (CCHS-  
86 MH) in Ontario showed that 40 % of Caribbean and 18% of African adults reported lifetime  
87 cannabis usage; also, 23% of Caribbean and 9% of African adults have reported using cannabis in  
88 the past year.<sup>9</sup> The prevalence of problematic use of cannabis (that can lead to harm, abuse or  
89 dependence, moderate/high score of 8 or more) on the Alcohol, Smoking and Substance  
90 Involvement Screening Tool-Cannabis Involvement Score (ASSIST-CIS) was 8% for Caribbean  
91 and 4% for African adults.<sup>9</sup> In a community-based study of party drug use among ethno-racially  
92 diverse gay and bisexual men (Asian, Caribbean, Latino, Aboriginal, Mixed and others) in  
93 Toronto, participants reported regular use of ecstasy, cannabis, ketamine, and cocaine<sup>10</sup>. In the  
94 same study, 43% of participants were polydrug users and almost all participants reported engaging  
95 in sex while they were on drugs.<sup>10</sup> For women, data from the Canadian HIV Women's Sexual and  
96 Reproductive Health Cohort Study reported various types of drug users. Among participants who  
97 self-identified as African, Caribbean and Black, 5% used tobacco, 41% drank alcohol, 5% were  
98 'socially acceptable' poly-substance users, 4% were illicit poly-substance users, and 3% were  
99 illicit poly-substance users of all types.<sup>11</sup>

100 Substance use is associated with increased risk of developing other mental disorders, utilization of  
101 emergency rooms and can have severe impact not only on individuals, but also on those closest to  
102 them, and society in general. Population-based data from the Ontario HIV Treatment Network  
103 reported recreation drug use (RDU) (16%) and co-occurring RDU and depression (34%) among  
104 heterosexual individuals. Among specific ethnic groups (African, Caribbean, Asian or Latino),  
105 14% reported RDU and 12% reported co-occurring RDU and depression.<sup>12</sup> Moreover, RDU-only  
106 or co-occurring depression and RDU were associated with increased incidence of emergency  
107 department (ED) visits.<sup>12</sup> Previous observational study showed that opioid poisonings led to 16  
108 hospitalizations per day in Canada.<sup>13</sup> In the same study, it was found that substance use also  
109 increased Emergency Department (ED) visits. Over the last five years, heroin or synthetic opioid  
110 poisonings increased the number of ED visits by 10-fold in Alberta, whereas in Ontario, ED visits  
111 increased four-fold and doubled due to heroin and synthetic opioid poisonings respectively.<sup>13</sup> A  
112 study investigating substance use and intimate partner violence (IPV) showed that cocaine use was  
113 associated with IPV among Black men who have sex with men.<sup>14</sup> Moreover, a significant

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3 114 association between illegal drug use and criminal behaviour exists.<sup>15</sup> In several studies, it was  
4 115 demonstrated that alcohol can significantly increase the risk of sexual assault.<sup>16</sup> A cross sectional  
5 116 study investigating predictors of sexual assault found that the number of sexual assaults committed  
6 117 by African American and Caucasian men were associated with alcohol problems.<sup>17</sup> Also, the  
7 118 relationship between driver blood alcohol concentration (BAC) and involvement in motor crash is  
8 119 well documented. Previous studies have reported that higher BACs significantly increase the  
9 120 likelihood of drivers to be involved in crashes.<sup>18</sup> Substance use is associated with increased risky  
10 121 sexual behaviour and the risk of HIV acquisition. Evidence from a Canadian study showed that  
11 122 ACB women reported having sex under alcohol, substance use and drug influence; 2% had shared  
12 123 drug use equipment and 27% had ever mixed sex with drugs or alcohol and 44% of ACB men  
13 124 reported that they had engaged in sex while using drugs or alcohol.<sup>19</sup>  
14 125 ACB in Canada experience different challenges that increase their vulnerability to use substances,  
15 126 however, the literature is rather sparse on this population. An initial search of the topic in PubMed,  
16 127 The JBI Database of Systematic Reviews and Implementation Reports and PROSPERO did not  
17 128 identify previous reviews or any review currently underway. There is a need to characterize  
18 129 substance use disorders among this population. The proposed scoping review aims to explore the  
19 130 available research evidence regarding common substance use disorders by ACB people in Canada  
20 131 as well as their health and social impacts.

## 24 132 **Methods and Analysis**

### 26 133 **Patient and public involvement**

27 134 Patients are not involved in the design of this scoping review study.

### 29 135 **Scoping review**

30 136 We will conduct a search of all research designs and types of publications, as well as grey literature  
31 137 and reports. The review will adhere to the Preferred Reporting Items for Systematic Reviews and  
32 138 Meta-Analysis Protocols (PRISMA-P) guidelines, including search strategy, selection criteria,  
33 139 data extraction, and data analysis<sup>20</sup>. Furthermore, the review will be conducted using the  
34 140 methodological framework for scoping reviews proposed by Arksey and O'Malley<sup>21</sup>. The  
35 141 framework recommends the following six steps: 1) Identifying the research question, 2)  
36 142 Identifying relevant studies, 3) Study selection, 4) Charting the data, 5) Collating, summarising  
37 143 and reporting the results, 6) Consultation. The review will be reported according to PRISMA-ScR  
38 144 guidelines and a checklist will be completed.<sup>22</sup> Our scoping review was initiated on 1 December  
39 145 2018 and is to be completed by 30 August 2019.

### 42 146 **Step 1: identifying the research question**

43 147 The following research questions of the scoping review were identified:

- 44 148 1) What characterizes substance use disorders among ACB people in Canada?
- 45 149 • What are the different types and prevalence of substance use among ACB people  
46 150 in Canada?
  - 47 151 • Do ACB people in Canada use more than one substance?
  - 48 152 • What are the factors associated with substance use among ACB people in Canada?
- 49 153 2) What are the health and social impacts of substance use among ACB people in Canada?

50 154 The following PICO (population, intervention, comparison, outcome) was formulated:

- 155 1) Population: Canadian ACB people
- 156 2) Intervention: Study examines substance use
- 157 3) Comparison: Other ethnic groups if provided
- 158 4) Outcomes:
  - 159 • Types of substance use disorders
  - 160 • Prevalence of substance use disorders and poly drugs use
  - 161 • Health impact of substance use
  - 162 • Social impact of substance use
  - 163 • Factors associated with substance use

## 164 **Step 2: identifying relevant studies**

165 In order to address the objectives of the review, an Internet-based search of published and grey  
166 literature will be conducted using electronic databases and Google. Also, we will search the  
167 website of key organizations, such as Health Canada, Statistics Canada, and the Canadian Centre  
168 on Substance Use and Addiction. For each individual database, our search strategy will combine  
169 Medical Subject Headings (MeSH) and ‘free-text’ terms in conjunction with the Boolean operators  
170 “and” and “or”. We will conduct searches in relevant electronic databases: Ovid MEDLINE,  
171 PsycINFO and CINHALL.

172 Our search will be limited to English language publications. Only studies published between 2000  
173 to 2019 will be included in this review. Our search strategy is described in Table 1, 2 and 3. Also,  
174 we will check reference lists of included studies to identify any additional relevant articles that  
175 were not captured by our search strategy.

## 176 **Step 3: Study selection**

177 We will use Endnote 9 (Clarivate Analytics), a citation management software program, to manage  
178 references and remove duplicates. To facilitate study screening and selection, all citations obtained  
179 using the search strategy will be imported into Rayyan, a web and mobile application for  
180 systematic reviews.<sup>23</sup> Study selection will proceed according to the stages described below.

181 **Stage 1:** A customized form reflecting the inclusion criteria in Table 4 will be pilot tested by two  
182 reviewers. Specifically, a screening form will be developed and will be applied by two reviewers  
183 independently to a sample of 5% abstracts to ensure consistency of use and clarity of the  
184 instrument. A Cohen’s kappa statistic<sup>24</sup> will be estimated to measure inter-rater reliability, and  
185 screening will begin when >60% agreement is achieved.

186 **Stage 2:** Assessment of studies for inclusion

### 187 *Inclusion criteria*

188 To be included in this study a reference should meet the following criteria:

- 189 1) Population: Canadian ACB people
- 190 2) Intervention: Study examines substance use
- 191 3) Comparison: Other ethnic groups if provided
- 192 4) Outcomes-Study examines at least one of the following:
  - 193 • Types of substance use disorders
  - 194 • Prevalence of substance use disorders and poly drugs use
  - 195 • Health impact of substance use
  - 196 • Social impact of substance use
  - 197 • Factors associated with substance use

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3 198 All titles and abstracts identified from the electronic database search will be reviewed  
4 199 independently by two reviewers. Differences in opinion will be resolved by consensus. Discussion  
5 200 with a third author will take place in situations where consensus cannot be reached. In cases where  
6 201 abstracts are not provided, are unclear, or there is any other reason for uncertainty, the full article  
7 202 will be obtained before making a decision regarding eligibility for inclusion. The full text of all  
8 203 potentially relevant articles will be obtained and will be reviewed using the inclusion criteria  
9 204 defined above.

#### 12 205 **Exclusion criteria**

13 206 Articles that describe normal prescription drug use.

#### 15 207 **Step 4: charting the data**

16 208 Eligible studies will be extracted using a pre-designed data extraction form. The data extraction  
17 209 form will be pilot tested with a sample of 5 studies to ensure clarity and consistency. We will  
18 210 extract basic study information like first author, title, purpose, year of publication and province. In  
19 211 addition, we will extract information about the population, method, age, type of substance use,  
20 212 poly drug use, impact of drug use, findings and limitations of the study (Table 5).

#### 23 213 **Step 5: collating, summarising and reporting the results**

24 214 Rather than provide a quantitative synthesis of literature, as is typically the use of systematic  
25 215 reviews, this scoping review aims to summarise a wide range of findings regarding substance use  
26 216 disorders among ACB people in Canada<sup>25</sup>. Therefore, we will provide a descriptive summary of  
27 217 the gathered articles including peer-reviewed articles, text, opinion or systematic reviews. The  
28 218 descriptive summary will contain the characteristics of included studies, such as the overall  
29 219 number of studies, types of study design, years of publication, characteristics of the study  
30 220 populations, and provinces where studies were conducted. In addition, we will summarize the  
31 221 study findings with respect to the outcomes and report any gaps that might require further  
32 222 investigation. Our synthesis will inform whether ACB people in Canada experience disorders  
33 223 related to alcohol, tobacco, stimulants, depressants, hallucinogens, opioids, or cannabis. Also, our  
34 224 synthesis will inform whether ACB people in Canada use more than one drug at a time and, the  
35 225 health and social impacts of substance use.

#### 39 226 **Step 6: consultation**

40 227 Neither patients nor public will be involved.

#### 42 228 **Ethics and dissemination**

43 229 Our proposed study does not involve human participation. As a scoping review, this study will use  
44 230 only published literature. Therefore, research ethics approval is not required. Results will be  
45 231 disseminated through publications in open access peer-reviewed scientific journals, presentations  
46 232 at scientific meetings and presentations to the lay public through the media where appropriate. The  
47 233 results from this review will be used to plan future systematic reviews.



## 234 Discussion and conclusion

235 The proposed scoping review will have the potential to inform research, programs and services  
236 that could be used to improve the health and wellbeing of ACB people in Canada. Specifically,  
237 this review will inform policy-makers, healthcare providers, clinicians and researchers on  
238 substance use among Canadian ACB people.

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244 strategies and available resources.

## 245 Competing interests

246 Not declared

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257 Miller Desmond (MD), Wong Josephine (WJ). **Guarantor of the review:** Joseph D. Joseph  
258 (NDJ)

## 259 Table 1: Database search strategy

### 260 1. Ovid Medline Search

	Key term	#Hits
1	exp ALCOHOLS/ or Binge drink*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	621613
2	(illicit adj2 drug*).tw.	9827
3	Marijuana.mp. or exp Cannabis/	22250
4	(Inhalant adj2 nitrite).tw.	40
5	Street Drugs/	10253
6	poppers.tw.	338
7	exp COCAINE/ or exp CRACK COCAINE/	24487

	Key term	#Hits
8	(Amphetamines or N-Methyl-3,4- methylenedioxyamphetamine or 3,4-Methylenedioxyamphetamine or Ecstasy or MDMA or MDA).tw.	56092
9	(Psychedelic* or Psychotropic Drugs).tw.	6855
10	exp HEROIN/	5376
11	Opiate*.tw.	23681
12	exp OPIUM/	1961
13	exp BENZODIAZEPINES/	63290
14	Demerol.tw. or exp Meperidine/	5791
15	(Cigarette* or tobacco).tw.	63819
16	(Psychedelic adj2 drug*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	218
17	(Hallucinogenic adj2 Drug*).mp. or hallucinogens.tw. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	1630
18	Vicodin.tw.	56
19	exp CODEINE/	6561
20	exp FENTANYL/	15005
21	Sedative*.tw.	17745
22	Valium.tw. or exp Diazepam/	17699
23	Xanax.tw. or Alprazolam/	1754
24	Ritalin.tw. or exp Methylphenidate/	6870
25	Adderall.tw.	158
26	(Erectile adj2 dysfunction adj2 drug).tw.	57
27	Viagra.tw. or Sildenafil Citrate/	5335
28	Cialis.tw. or Tadalafil/	1317
29	(Levitra or Vardenafil Dihydrochloride).tw.	101
30	Crystal.tw.	189761
31	(GHB or Gamma-hydroxybutyrate).tw.	2544
32	canada/	85054
33	(Canada or Canad*).tw.	112521
34	(alberta or british columbia or nova scotia or prince edward island or newfoundland or labrador or nunavut or northwest territories or Yukon or Quebec or Saskatchewan or manitoba or Ontario or new brunswick).ti,ab.	60865
35	Caribbean.mp. or exp Caribbean Region/	35105
36	(Black* or Caribbean or African or Immigrant* or immigra* or migration or migrant*).tw.	493685
37	(Black adj2 canadian*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word,	32

Key term	#Hits
keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	
38 Ethnic Groups/ or foreign-born.mp.	59963
39 (new adj2 Canadian).tw.	197
40 (asylum or new comer or refugees or minorit*).tw.	66945
41 racial*.mp.	36734
42 substance-related disorders/ or alcohol-related disorders/ or amphetamine-related disorders/ or cocaine-related disorders/ or drug overdose/ or heroin dependence/ or inhalant abuse/ or marijuana abuse/ or opioid-related disorders/ or phencyclidine abuse/ or psychoses, substance-induced/ or substance abuse, intravenous/ or substance abuse, oral/ or substance withdrawal syndrome/ or "tobacco use disorder"/ or opioid dependence.mp.	172286
43 Alcoholic Intoxication/	12144
44 exp OPIUM DEPENDENCE/	12
45 exp HEROIN DEPENDENCE/	8793
46 substance addiction.tw.	250
47 (drug adj2 addiction).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	7594
48 (drug adj2 abuse).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	17792
49 exp Inhalant Abuse/	187
50 exp Cocaine Smoking/	6
51 exp Cocaine-Related Disorders/	7724
52 substance addiction.tw.	250
53 drug addiction.mp.	7334
54 exp Prescription Drug Misuse/	11373
55 "substance use disorders".mp.	7809
56 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 or 28 or 29 or 30 or 31	1109799
57 32 or 33 or 34	185044
58 35 or 36 or 37 or 38 or 39 or 40 or 41	622158
59 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	196134
60 56 and 57 and 58	182
61 57 and 58 and 59	132
62 60 or 61	261
63 limit 62 to english language	258
64 limit 63 to (english language and yr="2000 - 2019")	212

261 **2. PsycINFO Search strategy**

Key Terms	#Hits
(Black* OR Caribbean OR Africa* OR "Black Canadian" OR black-foreign OR africa-born OR foreign-born OR caribbean-born OR radicalized groups OR ethnic groups OR "Caribbean region" OR "African ancestry" OR "black Caribbean ethnicity") AND (canada OR ab(Canad* OR Canadian* OR alberta OR british columbia OR nova scotia OR prince edward island OR newfoundland OR labrador OR nunavut OR northwest territories OR Yukon OR Quebec OR Saskatchewan OR manitoba OR Ontario OR new brunswick)) AND (alcohol OR "illicit drug*" OR marijuana OR cannabis OR poppers OR "street drug*" OR cocaine OR "stimulant drug*" OR amphetamines abuse OR n-methyl-3,4-methylenedioxyamphetamine OR 3,4-methylenedioxyamphetamine OR ecstasy OR hallucinogens OR methylenedioxymethamphetamine OR methylenedioxyamphetamine OR MDMA OR MDA OR psychedelic* OR psychotropic drug* OR heroin OR opiate* OR benzodiazepines OR demerol OR meperidine OR cigarette* OR tobacco OR "psychedelic drug*" OR "hallucinogenic drug*" OR "pain killer*" OR vicodin OR codeine OR fentanyl OR sedative* OR valium OR diazepam OR xanax OR alprazolam OR ritalin OR methylphenidate OR party drug* OR adderall OR "erectile dysfunction drug" OR viagra OR sildenafil citrate OR cialis OR tadalafil OR levitra OR "poly drug" OR crystal OR gamma-hydroxybutyrate OR gamma-hydroxybutyrate OR vardenafil OR "recreation drug*" or (substance-related disorders) OR (alcohol-related disorders) OR (amphetamine-related disorders) OR (cocaine-related disorders) OR (drug overdose) OR (heroin dependence) OR (inhalant abuse) OR (marijuana abuse) OR (opioid-related disorders) OR (phencyclidine abuse) OR psychoses OR substance-induced OR (substance abuse) OR intravenous OR (drug injection) OR (substance withdrawal syndrome) OR (tobacco use disorder) OR (opioid dependence) OR (Alcoholic Intoxication) OR (opium dependence) OR (heroin dependence) OR (substance addiction) OR (drug abuse) OR (Inhalant Abuse) OR (Cocaine Smoking) OR (Cocaine-Related Disorders) OR (substance addiction) OR (drug addiction) OR "Prescription Drug Misuse" OR "substance use disorders") Limits: English, 2000-01-01 - 2019-04-05	321

262 **CINHAL search strategy**

Key term	# Hits
S67 S64 OR S65 Limiters - Published Date: 20000101-20190131; Exclude MEDLINE records	108
S66 S64 OR S65	336
S65 S46 AND S47 AND S63	300
S64 S35 AND S47 AND S63	102

	Key term	# Hits
S63	S48 OR S49 OR S50 OR S51 OR S52 OR S53 OR S54 OR S55 OR S56 OR S57 OR S58 OR S59 OR S60 OR S61 OR S62	221,141
S62	"African*"	39,655
S61	(MH "Africa+")	65,728
S60	"racial groups"	993
S59	(MH "Minority Groups")	9,980
S58	"asylum seekers"	805
S57	(MH "Refugees")	5,726
S56	""foreign-born""	1,482
S55	(MH "Ethnic Groups+")	120,462
S54	""Black canadian*""	36
S53	(MH "Transients and Migrants")	3,742
S52	"immigra*"	21,155
S51	(MH "Immigrants")	12,198
S50	(MH "Blacks") OR "African"	67,751
S49	""Caribbean Region""	159
S48	""Caribbean"" OR (MH "West Indies")	3,710
S47	(MH "Canada") OR (MH "Alberta") OR (MH "British Columbia") OR (MH "Manitoba") OR (MH "New Brunswick") OR (MH "Newfoundland") OR (MH "Northwest Territories") OR (MH "Nova Scotia") OR (MH "Nunavut") OR (MH "Ontario") OR (MH "Quebec") OR (MH "Saskatchewan") OR (MH "Yukon Territory")	87,270

	Key term	# Hits
S46	S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45	149,256
S45	""HEROIN DEPENDENCE""	281
S44	(MH "Inhalant Abuse")	340
S43	""PRESCRIPTION DRUG MISUSE""	279
S42	(MH "Intravenous Drug Users")	1,787
S41	(MH "Substance Abuse+")	56,700
S40	MH "Alcohol-Induced Disorders	670
S39	MH "Alcohol-Induced Disorders	670
S38	(MH "Substance Abuse, Intravenous") OR ""drug abuse""	9,226
S37	""drug addiction""	2,243
S36	(MH "Substance Use Disorders+") OR "substance addiction" OR (MH "Behavior, Addictive+") OR (MH "Substance Use Rehabilitation Programs+") OR (MH "Substance Dependence+")	145,870
S35	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34	151,279
S34	(MH "Analgesics, Opioid+")	29,420
S33	"recreational drugs"	238
S32	""GHB""	349
S31	""Gamma-hydroxybutyrate""	150
S30	""Crystal""	3,104

	Key term	# Hits
S29	(MH "Vardenafil Hydrochloride") OR "Levitra"	99
S28	"Cialis" OR (MH "Tadalafil")	123
S27	"Viagra" OR (MH "Sildenafil")	1,314
S26	""Erectile dysfunction drug""	95
S25	""Adderall""	92
S24	(MH "Methylphenidate") OR ""Ritalin""	2,132
S23	(MH "Methylphenidate")	2,062
S22	(MH "Alprazolam") OR ""Xanax""	332
S21	(MH "Diazepam")	972
S20	""Sedative*""	8,160
S19	(MH "Fentanyl+")	4,125
S18	(MH "Codeine+") OR (MH "Oxycodone")	2,217
S17	""Vicodin""	37
S16	""Hallucinogenic Drug*""	40
S15	(MH "Hallucinogens+")	1,587
S14	(MH "Street Drugs+") OR (MH "Drugs, Non-Prescription") OR ""Psychedelic drug*""	9,003
S13	(MH "Meperidine") OR "Demerol"	764
S12	(MH "Antianxiety Agents, Benzodiazepine+")	8,068
S11	(MH "Opium+")	14,137
S10	(MH "Narcotics") OR (MH "Naloxone") OR "Opiate*"	14,104
S9	(MH "Heroin")	2,525
S8	(MH "Psychotropic Drugs+")	48,984

	Key term	# Hits
S7	(MH "Amphetamines+") OR (MH "Amphetamine+") OR (MH "Phenethylamines+") OR (MH "Methylenedioxymethamphetamine")	9,113
S6	(MH "Cocaine+") OR (MH "Crack Cocaine")	4,149
S5	"poppers"	85
S4	(MH "Cannabis") OR "Marijuana"	10,743
S3	(MH "Drugs, Off-Label") OR (MH "Drugs, Non-Prescription") OR (MH "Street Drugs+")	10,368
S2	"party drugs"	25
S1	(MH "Alcohols+")	32,901

263 **Table 2. Web-based Search Strategy: Google search engine**

No.	Search Term	# of Hits
1	Substance abuse or substance use or or name of substance e.g alcohol, cannabis, poppers	TBD
2	Blacks or Caribbean or African	TBD
3	Canada	TBD
4	#1 and #2 and #3 First 5-pages of the Web-based search will be reviewed Limitation: 1. English 2. 2000-present	TBD

264 **Table 3: Health Canada, Statistic Canada and the Canadian Centre on substance use and**  
265 **addiction search strategy**

No.	Search Term	# of Hits
1	Substance abuse or substance use or name of substance e.g alcohol, cannabis, poppers, etc. And African or Caribbean or Blacks	TBD
2	Limitation: 1. English 2. 2000-present	TBD



No.	Search Term	# of Hits

266 **Table 4: Inclusion criteria**

Eligibility checklist
<b>Inclusion Criteria</b>
Population: Canadian ACB male and female
Intervention: Study examines substance use
Comparison: Other ethnic groups if provided
Outcomes: at least one of the following <ul style="list-style-type: none"> <li>• Types of substance use disorders</li> <li>• Prevalence of substance use or poly drugs use</li> <li>• Factors associated with substance use</li> <li>• Health impact of substance use</li> <li>• Social impact of substance use</li> </ul>
<b>Exclusion Criteria</b>
Article describes normal prescription drug use

267 **Table 5: Data extraction form**

Study author
Title
Year
Province
Purpose
Design
Method
Sample size
Population gender (M/F)
Comparator if applicable
Age (youth: 16 – 25 year; adult > 25 year)
Outcomes <ul style="list-style-type: none"> <li>*Type of substance use disorders (stimulant, depressant, hallucinogen, opioids, inhalants, cannabis, alcohol, tobacco)</li> <li>*Prevalence of substance use and poly drugs use</li> <li>*Associated factors of substance use</li> <li>*Social impact</li> <li>*Health impact</li> </ul>
Main findings
Limitations
Conclusion

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269 **References**

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**PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol\***

Section and topic	Item No	Checklist item	Location in Document
<b>ADMINISTRATIVE INFORMATION</b>			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	Page 1, Line 2
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	Not applicable
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	Not applicable
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	Page 1, Line 3-26
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	Page 7, Line 259-269
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	Not applicable
Support:			
Sources	5a	Indicate sources of financial or other support for the review	Page 7, Line 253
Sponsor	5b	Provide name for the review funder and/or sponsor	Page 7, Line 253
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	Not applicable
<b>INTRODUCTION</b>			
Rationale	6	Describe the rationale for the review in the context of what is already known	Page 3-4, Line 70-142
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	Page 4-5, Line 160-166; Line 168-176 (PICO)
<b>METHODS</b>			
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	Page 4, Line 149-150 Page 5, Line 185-186 Page 5-6, Line 201-210

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Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	Page 5, Line 178-184; Line 187-188
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	Page 7-14, Line 270-276
Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	Page 5, Line 190-193
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	Page 5-6, Line 194-217
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	Page 6, Line 221-222
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	Page 6, Line 223-225. Page 15; Line 278 (Table 5)
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	Page 5-6, Line 171-176 (PICO outcomes). Page 15, Line 278 (Table 5)
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	Not applicable
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	Not applicable (scoping review)
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as $I^2$ , Kendall's $\tau$ )	Not applicable (scoping review)
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	Not applicable (scoping review)
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	Page 6, Line 227-235
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	Not applicable (scoping review)
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	Not applicable (scoping review)

**\* It is strongly recommended that this checklist be read in conjunction with the PRISMA-P Explanation and Elaboration (cite when available) for important clarification on the items. Amendments to a review protocol should be tracked and dated. The copyright for PRISMA-P (including checklist) is held by the PRISMA-P Group and is distributed under a Creative Commons Attribution Licence 4.0.**

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3 *From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and*  
4 *meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.*  
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