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# BMJ Open

## Identifying harm reduction strategies for alcohol and drug-use in inpatient care settings and emergency departments: a scoping review protocol

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# Identifying harm reduction strategies for alcohol and drug-use in inpatient care settings and emergency departments: a scoping review protocol

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**Word Count: 1826**

## ABSTRACT

### Introduction

People who use alcohol and/or drugs (PWUAD) are at high risk of medical complications, frequent hospitalization and drug-related death following discharge from inpatient settings and EDs. Harm reduction strategies implemented in these settings may mitigate negative health outcomes for PWUAD. However, the scope of harm reduction strategies used within inpatient settings and EDs is unknown. The objective of this review is to identify and synthesize reported harm reduction strategies that have been implemented across inpatient settings and emergency departments (EDs) for PWUAD

### Methods and analysis

This review will include studies from any country and health service reporting on harm reduction strategies implemented in inpatient settings or EDs. The population of interest includes people of any race and age identified as having drug dependence, or individuals who provided care to people with drug dependence and/or use drugs and alcohol. Studies which describe implementation strategies and enablers and barriers to implementation will be included. This review will follow JBI methodology for scoping reviews. Five databases will be searched for relevant terms and a grey literature search will also be conducted. A JBI-certified information specialist will design and run the search. Titles, abstracts and full texts of retrieved studies will be screened in duplicate. Data will be extracted using a standardized form. Extracted data will be synthesized and presented based on implementation strategy employed. The results will be reported using the PRISMA extension for scoping reviews.

### Ethics and dissemination

Patient partners with lived experience and relevant knowledge users will be engaged as research team members throughout all phases of the research process. A report detailing context, methodology and findings from this review will be disseminated to knowledge users and relevant community stakeholders. This review will also be submitted for publication to a relevant peer-reviewed journal.

Abstract word count: 293/300

## ARTICLE SUMMARY

### Strengths and limitations of this study

- This scoping review will be the first of its kind to describe the range of harm reduction strategies for people who use alcohol and/or drugs that have been implemented in inpatient and emergency department settings.
- This scoping review will be conducted in accordance with the Joanna Briggs Institute methodology for scoping reviews
- This scoping review will take an integrated knowledge translation approach by engaging key knowledge users and patient partners throughout the research process.
- Our search will be limited to five databases (MEDLINE All (Ovid), Embase (Elsevier Embase.com), CINAHL with Full Text (EBSCOhost), PsycINFO (EBSCOhost), and SCOPUS (Elsevier Scopus.com)) and searches for unpublished studies and grey literature will be done using Google's advance search function.
- The findings from this review will be disseminated to relevant knowledge users and community stakeholders, and have the potential to inform relevant decision making regarding the development and implementation of harm reduction strategies.

## INTRODUCTION

Alcohol and drug use is associated with significant negative health outcomes. People who use alcohol and/or drugs (PWUAD) have a higher risk of infectious disease, drug related complications and are more likely to be frequently hospitalized when compared to other individuals.[1,2] When seeking care, PWUAD are often discharged against medical advice or expelled as a result of illicit drug use, leading to increased readmission rates and poorer hospital outcomes.[2] Encountering stigma or having negative experiences in hospital settings can prevent PWUAD from seeking medical help.[3] Furthermore, PWUAD have a high risk of drug-related death after being discharged from hospital.[4] Therefore, PWUAD face health-related risks before, during and after receiving medical care, highlighting an urgent need to improve healthcare.

Harm reduction is a pragmatic approach geared toward addressing immediate needs across a wide range of health issues. Harm reduction aims to improve the health, safety and well-being of both the individual and the community.[5,6] Within the context of drug and alcohol use, harm reduction strategies provide alternatives to drug and alcohol abstinence for individuals who cannot or do not want to stop using.[7–9] The Canadian Drugs and Substances Strategy has identified harm reduction as an integral part of their strategy to help address some of the burden associated with substance use.[9] Some of the most common harm reduction strategies used in the context of illegal substances include clean needle distribution, supervised drug intake, and the use of substances like naloxone to temporarily reverse the effects of opioid overdose.[7–9] These strategies aim to improve well-being, lower rates of illness, overdose, and death because of substance use.[6–9] Harm reduction in relation to substance use has been implemented in community-based,[10] home-based[11] and inpatient settings.[12] However, there is a need to further understand the range of these harm reduction strategies.

In inpatient settings and EDs there is some indication that harm reduction strategies could help to improve health outcomes for PWUAD.[13–15] The use of these strategies within inpatient settings and EDs, remains low, despite high numbers of patients hospitalized with substance-induced symptoms[16] and calls for harm reduction implementation in hospital settings.[17] Low uptake of harm reduction strategies has been attributed to inadequate staffing, lack of funding, and stigma surrounding substance use.[18] A preliminary search of MEDLINE, the Cochrane Database of Systematic Reviews and JBI Evidence Synthesis was conducted and no current or underway systematic or scoping reviews on this topic were identified. Therefore, this study aims to identify and synthesize the literature on harm reduction strategies that have been implemented in inpatient settings and EDs among people who use substances.

## REVIEW QUESTIONS

The following questions will guide this review:

- 1
- 2
- 3 1. What harm reduction strategies have been implemented to help alleviate negative
- 4 health outcomes associated with substance use within inpatient settings and EDs?
- 5
- 6 2. What are the barriers and enablers to implementing harm reduction strategies in
- 7 inpatient settings and EDs?
- 8
- 9 3. What are the common implementation and intervention outcome measures
- 10 reported?
- 11
- 12
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## 14 **METHODS AND ANALYSIS**

15 The proposed scoping review will be conducted in accordance with the JBI methodology for  
16 scoping reviews.[19] This scoping review will use an integrated knowledge translation  
17 approach, working with health system decision makers and patient partners with lived  
18 experience through all stages of the review.[20] This scoping review has been registered on  
19 The Open Science Framework (OSF) registries (Registration DOI: [10.17605/OSF.IO/P7BHN](https://doi.org/10.17605/OSF.IO/P7BHN)).

### 24 **Inclusion criteria**

#### 25 **Participants**

26 This review will consider studies that include participants identifying as individuals with drug  
27 dependence or PWUAD who have been admitted to inpatient care or have accessed EDs for  
28 substance use related issues and/or any other medical issues. This review will also consider  
29 individuals who provide care for persons with drug dependence or PWUAD. People of any  
30 race, gender and age will be included.

#### 31 **Concept**

32 This review will consider studies that investigate any implementation strategy or  
33 intervention designed to reduce harm related to negative health outcomes associated with  
34 alcohol and/or drug use. Implementation strategies may include any enablers and/or  
35 barriers to facilitating harm reduction strategies. Patient reported outcome measures (e.g.,  
36 quality of life), and patient reported experience measures (e.g., feeling heard, receiving care  
37 asked for) will be included, as well as health outcome measures (e.g., length of stay,  
38 healthcare costs, recovery time, discharge against medical advice, readmission rates,  
39 overdose rates, mortality) will be considered.

#### 40 **Context**

41 Any healthcare setting that provides inpatient care or has a ED, in any country will be  
42 considered. This may include hospital settings, community inpatient day facilities or  
43 rehabilitation facilities where individuals receive treatment overnight. Outpatient settings  
44 and community-based service settings will be excluded.

### 45 **Types of sources**

46 This scoping review will include both experimental and quasi-experimental study designs



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2  
3 including randomized controlled trials, non-randomized controlled trials, pre-post studies  
4 and interrupted time-series studies. In addition, observational studies including prospective  
5 and retrospective cohort studies, case-control studies, cross-sectional studies, case series  
6 and individual case reports will be considered for inclusion. Qualitative and mixed methods  
7 studies will also be considered for inclusion. Grey literature sources such as policy  
8 documents and organizational reports will be included. Evidence syntheses, text and opinion  
9 papers will be excluded.  
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### 15 **Search strategy**

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17 In collaboration with a JBI-trained information specialist, a search strategy will be developed  
18 to locate published articles in peer-reviewed journals and grey literature repositories. An  
19 initial limited search of MEDLINE All (Ovid) was undertaken to identify articles on the topic.  
20 The text words contained in the titles and abstracts of relevant articles, and the index terms  
21 used to describe the articles were used to develop a full search strategy for MEDLINE  
22 (Supplementary Table 1) The MEDLINE search strategy will be peer-reviewed by at least one  
23 other information specialist before being translated to Embase (Elsevier Embase.com),  
24 CINAHL with Full Text (EBSCOhost), PsycINFO (EBSCOhost), and Scopus (Elsevier  
25 Scopus.com). The reference lists of articles selected for full text review will be screened for  
26 additional papers. Articles published in English, or those available for English translation will  
27 be included. No limits will be placed on date of publication.  
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### 35 **Information sources**

36 The databases to be searched include MEDLINE All (Ovid), Embase (Elsevier Embase.com),  
37 CINAHL with Full Text (EBSCOhost), PsycINFO (EBSCOhost), and SCOPUS (Elsevier  
38 Scopus.com). Sources of unpublished studies and grey literature will be retrieved via  
39 advanced searches in Google. We will not search pre-print servers, as this is not a rapidly  
40 emerging topic. However, pre-prints retrieved via the Google search will be screened and  
41 considered for inclusion. This topic is not appropriate for clinical trial research; therefore,  
42 we will not search trial registries.  
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### 48 **Study/Source of evidence selection**

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50 Following the search, all identified records will be collated and uploaded into Covidence  
51 systematic review software (Veritas Health Innovation, Melbourne, Australia) and duplicates  
52 removed. Following a pilot test, titles and abstracts will be screened by two independent  
53 reviewers for assessment against the inclusion criteria. Potentially relevant papers will be  
54 retrieved, and full texts will be assessed against the inclusion criteria by two independent  
55 reviewers. Reasons for exclusion of full-text papers will be recorded. Any disagreements  
56 that arise between reviewers at each stage of the screening process will be resolved  
57 through discussion or with an additional reviewer/s. The results of the search will be  
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3 reported and presented following the Preferred Reporting Items for Systematic Reviews and  
4 Meta-analyses for Scoping Reviews (PRISMA-ScR).[21]  
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### 8 **Data extraction**

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10 Data will be extracted from papers that meet inclusion criteria by two independent  
11 reviewers using a standardized data extraction tool (Supplementary Table 2). The extracted  
12 data will include characteristics of study participants, setting, study design and research  
13 objective. Outcome data including the harm reduction strategies or interventions employed  
14 by each study, barriers and enablers to implementation, and patient and health outcome  
15 data will be extracted.  
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18 The data extraction tool will be modified and revised as necessary during the process of  
19 extracting data from each included paper. Modifications will be detailed in the final scoping  
20 review. Authors of papers will be contacted to request missing or additional data, where  
21 required. Although scoping review methodology does not require critical appraisal of  
22 studies, upon request from the knowledge user, it was decided that included published peer  
23 reviewed papers and guidelines will be appraised using the Mixed Methods Appraisal  
24 Tool.[22]  
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### 30 **Data analysis and presentation**

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32 Extracted data will be synthesized and reported in tables throughout the report. A summary  
33 of each paper, including setting, publication date and country will be presented to provide  
34 context for the research findings. Outcome data will be reported separately and will be  
35 categorized based on barriers and facilitators of implementing harm reduction strategies  
36 and/or interventions.  
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## 41 **ETHICS AND DISSEMINATION**

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43 Given that this scoping review involves collecting and analyzing previously published  
44 literature and does not involve research on humans or animals we did not seek ethics  
45 approval from a research ethics board. However, during the initial development of the  
46 research question and search strategy, all authors completed an equity, diversity and  
47 inclusion reflection activity to identify and reflect upon individual bias and position in the  
48 literature. It was determined that individuals with lived experience of the topic area would  
49 be involved throughout the entire study process, from conceptualization to dissemination.  
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54 Results of this scoping review will be disseminated to knowledge users and relevant  
55 community stakeholders through an initial report. This document will provide a detailed  
56 reporting of context, methodology, findings as well as a lay summary, developed in  
57 partnership with our patient partners. Additionally, this review will be submitted as a  
58 manuscript for publication to a relevant scientific journal.  
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## ACKNOWLEDGEMENTS

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## FUNDING STATEMENT

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## AUTHOR CONTRIBUTIONS

JC, MS, LB and AC conceptualized the study, designed the search strategy and contributed to writing the manuscript. DC and CJ\* contributed to writing the manuscript. SM, LW, DS and AER supported the study conceptualization and informed the search strategy. CJ and MJ provided a patient perspective during conceptualization of the study and edited the manuscript.

## COMPETING INTERESTS

The authors declare no competing interests.

## References

- 1 McNeil R, Kerr T, Pauly B, *et al.* Advancing patient-centered care for structurally vulnerable drug-using populations: a qualitative study of the perspectives of people who use drugs regarding the potential integration of harm reduction interventions into hospitals. *Addiction* 2016;**111**:685–94. doi:<https://doi.org/10.1111/add.13214>
- 2 Rachlis BS, Kerr T, Montaner JS, *et al.* Harm reduction in hospitals: is it time? *Harm Reduct J* 2009;**6**:1–4. doi:10.1186/1477-7517-6-19
- 3 Carusone SC, Guta A, Robinson S, *et al.* “Maybe if I stop the drugs, then maybe they’d care?”—hospital care experiences of people who use drugs. *Harm Reduct J* 2019;**16**:1–10. doi:10.1186/s12954-019-0285-7
- 4 White SR, Bird SM, Merrall ELC, *et al.* Drugs-Related Death Soon after Hospital-Discharge among Drug Treatment Clients in Scotland: Record Linkage, Validation, and Investigation of Risk-Factors. *PLOS ONE* 2015;**10**:e0141073. doi:10.1371/journal.pone.0141073
- 5 Hawk M, Coulter RWS, Egan JE, *et al.* Harm reduction principles for healthcare settings. *Harm Reduction Journal* 2017;**14**. doi:<http://dx.doi.org.ezproxy.library.dal.ca/10.1186/s12954-017-0196-4>
- 6 Vearrier L. The value of harm reduction for injection drug use: A clinical and public health ethics analysis. *Disease-a-Month* 2019;**65**:119–41. doi:10.1016/j.disamonth.2018.12.002
- 7 Harm Reduction | The Homeless Hub. 2021.<https://www.homelesshub.ca/about-homelessness/substance-use-addiction/harm-reduction> (accessed 3 May 2021).
- 8 Harm Reduction. 2021.<https://ontario.cmha.ca/harm-reduction/> (accessed 3 May 2021).
- 9 Canada H. Harm Reduction: Canadian Drugs and Substances Strategy. aem. 2017.<https://www.canada.ca/en/health-canada/services/substance-use/canadian-drugs-substances-strategy/harm-reduction.html> (accessed 3 May 2021).
- 10 Olding M, Ivsins A, Mayer S, *et al.* A Low-Barrier and Comprehensive Community-Based Harm-Reduction Site in Vancouver, Canada. *American journal of public health* 2020;**110**:833–5. doi:<http://dx.doi.org.ezproxy.library.dal.ca/10.2105/AJPH.2020.305612>
- 11 Courser MW, Raffle H. With crisis comes opportunity: Unanticipated benefits resulting from pivots to take-home naloxone (THN) programs during the COVID-19 pandemic. *Journal of Substance Abuse Treatment* 2021;**122**:108220. doi:10.1016/j.jsat.2020.108220
- 12 Sharma M, Lamba W, Cauderella A, *et al.* Harm reduction in hospitals. *Harm Reduct J* 2017;**14**:1–4. doi:10.1186/s12954-017-0163-0
- 13 Elphinston RA, Sterling M, Leung J, *et al.* Brief Psychological Interventions for Reducing Prescription Opioid Use, Related Harm, and Pain Intensity in Patients With Chronic Pain:

- 1  
2  
3 A Systematic Review and Assessment of Patient Interest. *Clin J Pain* 2021;**37**:270–80.  
4 doi:10.1097/AJP.0000000000000908  
5  
6  
7 14 Sharpe S, Kool B, Whittaker R, *et al.* Effect of a text message intervention on alcohol-  
8 related harms and behaviours: secondary outcomes of a randomised controlled trial.  
9 *BMC Res Notes* 2019;**12**:267. doi:10.1186/s13104-019-4308-y  
10  
11 15 Saunders E, Metcalf SA, Walsh O, *et al.* “You can see those concentric rings going out”:  
12 Emergency personnel’s experiences treating overdose and perspectives on policy-level  
13 responses to the opioid crisis in New Hampshire. *Drug and Alcohol Dependence*  
14 2019;**204**:107555. doi:10.1016/j.drugalcdep.2019.107555  
15  
16  
17 16 Calcaterra SL, Binswanger IA, Edelman EJ, *et al.* The impact of access to addiction  
18 specialist on attitudes, beliefs and hospital-based opioid use disorder related care: A  
19 survey of hospitalist physicians. *Substance Abuse* 2020;**0**:1–9.  
20 doi:10.1080/08897077.2020.1748169  
21  
22  
23 17 Strike C, Robinson S, Guta A, *et al.* Illicit drug use while admitted to hospital: Patient and  
24 health care provider perspectives. *PloS one* 2020;**15**:e0229713.  
25 doi:http://dx.doi.org.ezproxy.library.dal.ca/10.1371/journal.pone.0229713  
26  
27  
28 18 Hobden KL, Cunningham JA. Barriers to the dissemination of four harm reduction  
29 strategies: a survey of addiction treatment providers in Ontario. *Harm Reduct J*  
30 2006;**3**:1–20. doi:10.1186/1477-7517-3-35  
31  
32  
33 19 Aromataris E, Munn Z, editors. *JBIM Manual for Evidence Synthesis*. JBI 2020.  
34 doi:10.46658/JBIMES-20-01  
35  
36 20 Government of Canada CI of HR. Guide to Knowledge Translation Planning at CIHR:  
37 Integrated and End-of-Grant Approaches - CIHR. 2012.https://cihr-  
38 irsc.gc.ca/e/45321.html (accessed 7 Jul 2021).  
39  
40  
41 21 Tricco AC, Lillie E, Zarin W, *et al.* PRISMA Extension for Scoping Reviews (PRISMA-ScR):  
42 Checklist and Explanation. *Ann Intern Med* 2018;**169**:467–73. doi:10.7326/M18-0850  
43  
44 22 Hong QN, Pluye P, Fabregues S, *et al.* Mixed Methods Appraisal Tool (MMAT) Version  
45 2018: User Guide.  
46 2018.http://mixedmethodsappraisaltoolpublic.pbworks.com/w/file/fetch/127916259/  
47 MMAT\_2018\_criteria-manual\_2018-08-01\_ENG.pdf (accessed 5 Jul 2021).  
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Supplementary Table 1: Search strategy Ovid MEDLINE All

1	Harm Reduction/
2	(harm* adj2 reduc*).ti,ab,kw,kf.
3	(harm* adj2 (minimiz* or minimis*)).ti,ab,kw,kf.
4	or/1-3
5	(stigma* or destigma* or de-stigma*).ti,ab,kw,kf.
6	(addiction* adj2 (consultation* or counsel* or therap* or treatment* or service*)).ti,ab,kw,kf.
7	Opiate Substitution Treatment/
8	(medication assisted therap* or medication assisted treatment*).ti,ab,kw,kf.
9	(opiate substitution* or opiate replacement* or opioid* substitution* or opioid* replacement* or opioid agonist?).ti,ab,kw,kf.
10	(methadone or buprenorphine or naloxone).ti,ab,kw,kf.
11	non-abstinence.ti,ab,kw,kf.
12	or/7-11
13	Needle-Exchange Programs/
14	((needle* or syringe*) adj2 (exchange* or clean* or steril*)).ti,ab,kw,kf.
15	(supervi?ed adj2 (inject* or consum*)).ti,ab,kw,kf.
16	(consumption adj3 site?).ti,ab,kw,kf.
17	overdose prevention site?.ti,ab,kw,kf.
18	or/13-17
19	exp Continuity of Patient Care/
20	((care or healthcare) adj2 (retention or retain* or continuity or continuum)).ti,ab,kw,kf.
21	(aftercare or handoff or hand-off or patient transition* or patient transfer*).ti,ab,kw,kf.
22	(leav* against medical advice or left against medical advice or (leav* adj2 early) or (left adj2 early) or abscond* or (early adj discharge*)).ti,ab,kw,kf.
23	or/19-22
24	((staff or worker* or employee* or system) adj3 (cultur* or attitude* or belief* or misconception* or perception* or perceiv* or resist* or educat* or train* or language)).ti,ab,kw,kf.
25	or/4-6,12,18,23-24
26	exp Hospitalization/
27	Inpatients/
28	(admitted or admission* or hospitalis* or hospitaliz* or inpatient* or in-patient* or overnight*).ti,ab,kw,kf.
29	(emergency department* or emergency room* or emergency unit? or emergency ward* or "accident and emergency").ti,ab,kw,kf.
30	or/26-29
31	Alcoholics/
32	Drug Users/
33	("people who use drugs" or "persons who use drugs" or pwud).ti,ab,kw,kf.
34	("people who inject drugs" or "persons who inject drugs").ti,ab,kw,kf.
35	("people who use alcohol" or "persons who use alcohol" or pwua).ti,ab,kw,kf.
36	((drug or drugs or substance* or opioid* or opiate* or alcohol) adj2 (abuse* or "use" or user or users* or addict* or involve* or depend* or habit*)).ti,ab,kw,kf.
37	(alcoholic* or alcoholism).ti,ab,kw,kf.
38	(addict or addicts or addiction*).ti,ab,kw,kf.
39	overdose*.ti,ab,kw,kf.
40	or/31-39
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Supplementary Table 2: Harm Reduction Scoping Review Extraction Form (Draft)

Author, Year	Country	Study Design	Objective	Setting	Participant Characteristics (sample size, age, gender)	Description of Harm Reduction Strategy	Barriers or Enablers to Implementation		Patient-related Outcomes Measured		Health-related outcomes measured			Description of Main Results
							Reported Barriers	Reported Enablers	Satisfaction level	Experience of care	LOS	Mortality Rate	Re-admission rate	

LOS: length of stay

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For peer review only



**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	Page #
<b>ADMINISTRATIVE INFORMATION</b>			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	N/A
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	5
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	1
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	8
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	N/A
Support:			
Sources	5a	Indicate sources of financial or other support for the review	8
Sponsor	5b	Provide name for the review funder and/or sponsor	8
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	N/A
<b>INTRODUCTION</b>			
Rationale	6	Describe the rationale for the review in the context of what is already known	4
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	4-5
<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	5
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	5-6
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	Suppl Table 1

Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	6-7
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)	6-7
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	7
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	7 – Suppl Table 2
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	7
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	7
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	N/A
	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 $\tau$ )	N/A
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	N/A
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	7
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	N/A
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	N/A

**\* 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.**

*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.*

# BMJ Open

## Identifying harm reduction strategies for alcohol and drug-use in inpatient care settings and emergency departments: a scoping review protocol

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# Identifying harm reduction strategies for alcohol and drug-use in inpatient care settings and emergency departments: a scoping review protocol

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**Word Count: 2093**

## ABSTRACT

### Introduction

People who use alcohol and/or drugs (PWUAD) are at high risk of medical complications, frequent hospitalization and drug-related death following discharge from inpatient settings and emergency departments (EDs). Harm reduction strategies implemented in these settings may mitigate negative health outcomes for PWUAD. However, the scope of harm reduction strategies used globally within inpatient settings and EDs is unknown. The objective of this review is to identify and synthesize reported harm reduction strategies that have been implemented across inpatient settings and EDs for PWUAD.

### Methods and analysis

This review will include studies from any country and health service reporting on harm reduction strategies implemented in inpatient settings or EDs. The population of interest includes people of any race, gender and age identifying as PWUAD, or individuals who provided care to PWUAD. Studies which describe implementation strategies and barriers and enablers to implementation will be included. Studies published in English, or those available for English translation will be included. The following databases will be searched: MEDLINE All (Ovid), Embase (Elsevier Embase.com), CINAHL with Full Text (EBSCOhost), PsycINFO (EBSCOhost), and SCOPUS (Elsevier Scopus.com). A grey literature search will be conducted. There will be no date restrictions on the search. Titles, abstracts, and full texts will be screened in duplicate. Data will be extracted using a standardized form. The results will be reported using the PRISMA extension for scoping reviews.

### Ethics and dissemination

Scoping reviews do not require ethical approval. Patient partners with lived experience and relevant knowledge users will be engaged as research team members throughout all phases of the research process. A report detailing context, methodology and findings from this review will be disseminated to knowledge users and relevant community stakeholders. This review will be submitted for publication to a relevant peer-reviewed journal.

Abstract word count: 292/300

## ARTICLE SUMMARY

### Strengths and limitations of this study

- To our knowledge this scoping review will be the first of its kind to describe the range of harm reduction strategies for people who use alcohol and/or drugs that have been implemented in inpatient and emergency department settings.
- This scoping review will be conducted in accordance with the Joanna Briggs Institute methodology for scoping reviews and will take an integrated knowledge translation approach by engaging key knowledge users and patient partners throughout the research process.
- Our search will be limited to five databases (MEDLINE All (Ovid), Embase (Elsevier Embase.com), CINAHL with Full Text (EBSCOhost), PsycINFO (EBSCOhost), and SCOPUS (Elsevier Scopus.com)) and searches for unpublished studies and grey literature will be retrieved and included following the systematic approach to grey literature searching outlined by Godin et al.
- Given that this is a scoping review, it will not contain a meta-analysis of available evidence and will only describe how research in this field is being conducted, the types of evidence that are being produced, and specific knowledge gaps within the literature.
- Our search will be limited to English literature and non-English literature that is available for translation.

## INTRODUCTION

Alcohol and drug use is associated with significant negative health outcomes. People who use alcohol and/or drugs (PWUAD) have a higher risk of infectious disease, drug related complications and are more likely to be frequently hospitalized when compared to other individuals.[1,2] When seeking care, PWUAD are often discharged against medical advice or expelled as a result of illicit drug use, leading to increased readmission rates and poorer hospital outcomes.[2] Encountering stigma or having negative experiences in hospital settings can prevent PWUAD from seeking medical help.[3] Furthermore, PWUAD have a high risk of drug-related death after being discharged from hospital.[4] Therefore, PWUAD face health-related risks before, during and after receiving medical care, highlighting an urgent need to improve healthcare.

Harm reduction is a pragmatic approach geared toward addressing immediate needs across a wide range of health issues. Harm reduction aims to improve the health, safety and well-being of both the individual and the community.[5,6] Within the context of drug and alcohol use, harm reduction strategies provide alternatives to drug and alcohol abstinence for individuals who cannot or do not want to stop using.[7–9] The Canadian Drugs and Substances Strategy has identified harm reduction as an integral part of their strategy to help address some of the burden associated with substance use.[9] Some of the most common harm reduction strategies used in the context of illegal substances include clean needle distribution, supervised drug intake, substitution therapy, safe supply and the use of substances like naloxone to temporarily reverse the effects of opioid overdose.[7–11] These strategies aim to improve well-being, lower rates of illness, overdose, and death because of substance use.[6–9] Harm reduction in relation to substance use has been implemented in community-based,[12] home-based[13] and inpatient settings.[14] However, there is a need to further understand the range of these harm reduction strategies.

In inpatient settings and emergency departments (EDs) there is some indication that harm reduction strategies could help to improve health outcomes for PWUAD.[15–17] The use of these strategies within inpatient settings and EDs, remains low, despite high numbers of patients hospitalized with substance-induced symptoms[18] and calls for harm reduction implementation in hospital settings.[19] Low uptake of harm reduction strategies has been attributed to inadequate staffing, lack of funding, and stigma surrounding substance use.[20] Yet, to our knowledge the full range of available implementation strategies used in implementing harm reduction strategies and the range of barriers and enablers to implementation has not been adequately described.

A preliminary search of MEDLINE, the Cochrane Database of Systematic Reviews and JBI Evidence Synthesis was conducted and no current or underway systematic or scoping reviews on this topic were identified. Therefore, this study aims to identify and synthesize the literature on harm reduction strategies that have been implemented in inpatient settings and EDs among people who use substances.



## REVIEW QUESTIONS

The following questions will guide this review:

1. What harm reduction strategies have been evaluated to help alleviate negative health outcomes associated with substance use within inpatient settings and EDs?
2. How are harm reduction strategies implemented in inpatient settings and EDs?
3. What are the reported barriers and enablers to their implementation?
4. What are the commonly reported outcome measures used to evaluate harm reduction strategies and their implementation in these settings?

## METHODS AND ANALYSIS

The proposed scoping review will be conducted in accordance with the JBI methodology for scoping reviews.[21] This scoping review will use an integrated knowledge translation approach, working with health system decision makers and patient partners with lived experience through all stages of the review.[22] This scoping review has been registered on The Open Science Framework (OSF) registries (Registration DOI: [10.17605/OSF.IO/P7BHN](https://doi.org/10.17605/OSF.IO/P7BHN)).

### Inclusion criteria

#### Participants

This review will consider studies that include participants identifying as individuals with drug dependence or PWUAD who have been admitted to inpatient care or have accessed EDs for substance use related issues and/or any other medical issues. This review will also consider individuals who provide care for persons with drug dependence or PWUAD. People of any race, gender and age will be included.

#### Concept

This review will consider studies that investigate any intervention or implementation strategy of an intervention designed to reduce harm related to negative health outcomes associated with alcohol and/or drug use. Descriptions of implementation strategies may include any barriers and/or enablers to facilitating harm reduction strategies. This review will consider reported outcome measures, and not outcome data. These will include patient reported outcome measures (e.g., quality of life), and patient reported experience measures (e.g., feeling heard, receiving care asked for), as well as health outcome measures (e.g., length of stay, healthcare costs, recovery time, discharge against medical advice, readmission rates, overdose rates, mortality).

#### Context

Any healthcare setting that provides inpatient care or has an ED, in any country will be considered. This may include hospital settings, community inpatient day facilities or

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3 rehabilitation facilities where individuals receive treatment overnight. Outpatient settings  
4 and community-based service settings will be excluded.  
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### 8 **Types of sources**

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10 This scoping review will include both experimental and quasi-experimental study designs  
11 including randomized controlled trials, non-randomized controlled trials, pre-post studies  
12 and interrupted time-series studies. In addition, observational studies including prospective  
13 and retrospective cohort studies, case-control studies, cross-sectional studies, case series  
14 and individual case reports will be considered for inclusion. Qualitative and mixed methods  
15 studies will also be considered for inclusion. Grey literature sources such as policy  
16 documents and organizational reports will be included. To our knowledge, evidence  
17 syntheses which address our research questions do not exist and so cannot be included in  
18 this review. However, the reference lists of any evidence syntheses identified by our search  
19 will be reviewed for relevant articles. Text and opinion papers will be excluded.  
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### 26 **Search strategy**

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28 In collaboration with a JBI-trained information specialist, a search strategy will be developed  
29 to locate published articles in peer-reviewed journals and grey literature repositories. An  
30 initial limited search of MEDLINE All (Ovid) was undertaken to identify articles on the topic.  
31 The text words contained in the titles and abstracts of relevant articles, and the index terms  
32 used to describe the articles were used to develop a full search strategy for MEDLINE  
33 (Supplementary Table 1) The MEDLINE search strategy was peer-reviewed by an information  
34 specialist before being translated to Embase (Elsevier Embase.com), CINAHL with Full Text  
35 (EBSCOhost), PsycINFO (EBSCOhost), and Scopus (Elsevier Scopus.com) (Supplementary  
36 Table 1). The reference lists of articles selected for full text review will be screened for  
37 additional papers. Articles published in English, or those available for English translation will  
38 be included. No limits will be placed on date of publication.  
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### 46 **Information sources**

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48 The databases to be searched include MEDLINE All (Ovid), Embase (Elsevier Embase.com),  
49 CINAHL with Full Text (EBSCOhost), PsycINFO (EBSCOhost), and SCOPUS (Elsevier  
50 Scopus.com). Grey literature sources will be retrieved and included, following the  
51 systematic approach to grey literature searching outlined by Godin et al.[23] We will not  
52 search pre-print servers, as this is not a rapidly emerging topic. However, pre-prints will be  
53 screened and considered for inclusion. This topic is not appropriate for clinical trial research;  
54 therefore, we will not search trial registries.  
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## Study/Source of evidence selection

Following the search, all identified records will be collated and uploaded into Covidence systematic review software (Veritas Health Innovation, Melbourne, Australia) and duplicates removed. Following a pilot test, titles and abstracts will be screened by two independent reviewers for assessment against the inclusion criteria. Potentially relevant papers will be retrieved, and full texts will be assessed against the inclusion criteria by two independent reviewers. Reasons for exclusion of full-text papers will be recorded. Any disagreements that arise between reviewers at each stage of the screening process will be resolved through discussion or with an additional reviewer/s. The results of the search will be reported and presented following the Preferred Reporting Items for Systematic Reviews and Meta-analyses for Scoping Reviews (PRISMA-ScR).[24]

## Data extraction

Data will be extracted from papers that meet inclusion criteria by two independent reviewers using a standardized data extraction tool (Supplementary Table 2). The extracted data will include characteristics of study participants, setting, study design and research objective. Harm reduction strategies employed by each study, barriers and enablers to implementation, and patient and health outcome measures will be extracted.

The data extraction tool will be modified and revised as necessary during the process of extracting data from each included paper. Modifications will be detailed in the final scoping review. Authors of papers will be contacted to request missing or additional data, where required. Although scoping review methodology does not require critical appraisal of studies, upon request from the knowledge user, it was decided that included published peer reviewed papers and guidelines will be appraised using the Mixed Methods Appraisal Tool.[25]

## Data analysis and presentation

Extracted data will be synthesized and reported in tables throughout the report. A summary of each paper, including setting, publication date and country will be presented to provide context for the research findings. Outcome measures will be reported separately and will be categorized based on harm reduction strategy and barriers and enablers to implementation.

The planned timeline for this review is to complete the title and abstract screening by end of September 2021, have full-text screening completed by mid-October 2021, have data extraction completed by end of October, have a report finalized for submission to the knowledge user by mid-November 2021, and a manuscript finalized and submitted for publication by end of November 2021.

## Patient and Public Involvement

Two patient partners were consulted during the development of the research questions and inclusion/exclusion criteria and provided feedback of the protocol manuscript. Both patient partners will be engaged to co-produce key messages during the results stage and help in the production of a plain language summary, which will be distributed to local community organizations.

## ETHICS AND DISSEMINATION

Given that this scoping review involves collecting and analyzing previously published literature and does not involve research on humans or animals we did not seek ethics approval from a research ethics board. However, during the initial development of the research question and search strategy, all authors completed an equity, diversity and inclusion reflection activity to identify and reflect upon individual bias and position in the literature. It was determined that individuals with lived experience of the topic area would be involved throughout the entire study process, from conceptualization to dissemination.

Results of this scoping review will be disseminated to knowledge users and relevant community stakeholders through an initial report. This document will provide a detailed reporting of context, methodology, findings as well as a lay summary, developed in partnership with our patient partners. Additionally, this review will be submitted as a manuscript for publication to a relevant scientific journal.

## ACKNOWLEDGEMENTS

We would like to thank our patient partners for their work on this project. We would like to acknowledge the Nova Scotia Health Authority, IWK Health, St Michael's Hospital and the Strategy for Patient-Oriented Research Evidence Alliance for their support of this project.

## FUNDING STATEMENT

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## AUTHOR CONTRIBUTIONS

JC, MS, LB and AC conceptualized the study, designed the search strategy and contributed to writing the manuscript. DC and CJ\* contributed to writing the manuscript. SM, LW, DS and AER supported the study conceptualization and informed the search strategy. CJ and MJ provided a patient perspective during conceptualization of the study and edited the manuscript.

## COMPETING INTERESTS

The authors declare no competing interests.

For peer review only

## References

- 1 McNeil R, Kerr T, Pauly B, *et al.* Advancing patient-centered care for structurally vulnerable drug-using populations: a qualitative study of the perspectives of people who use drugs regarding the potential integration of harm reduction interventions into hospitals. *Addiction* 2016;**111**:685–94. doi:<https://doi.org/10.1111/add.13214>
- 2 Rachlis BS, Kerr T, Montaner JS, *et al.* Harm reduction in hospitals: is it time? *Harm Reduct J* 2009;**6**:1–4. doi:[10.1186/1477-7517-6-19](https://doi.org/10.1186/1477-7517-6-19)
- 3 Carusone SC, Guta A, Robinson S, *et al.* “Maybe if I stop the drugs, then maybe they’d care?”—hospital care experiences of people who use drugs. *Harm Reduct J* 2019;**16**:1–10. doi:[10.1186/s12954-019-0285-7](https://doi.org/10.1186/s12954-019-0285-7)
- 4 White SR, Bird SM, Merrall ELC, *et al.* Drugs-Related Death Soon after Hospital-Discharge among Drug Treatment Clients in Scotland: Record Linkage, Validation, and Investigation of Risk-Factors. *PLOS ONE* 2015;**10**:e0141073. doi:[10.1371/journal.pone.0141073](https://doi.org/10.1371/journal.pone.0141073)
- 5 Hawk M, Coulter RWS, Egan JE, *et al.* Harm reduction principles for healthcare settings. *Harm Reduction Journal* 2017;**14**. doi:<http://dx.doi.org.ezproxy.library.dal.ca/10.1186/s12954-017-0196-4>
- 6 Vearrier L. The value of harm reduction for injection drug use: A clinical and public health ethics analysis. *Disease-a-Month* 2019;**65**:119–41. doi:[10.1016/j.disamonth.2018.12.002](https://doi.org/10.1016/j.disamonth.2018.12.002)
- 7 Harm Reduction | The Homeless Hub. 2021.<https://www.homelesshub.ca/about-homelessness/substance-use-addiction/harm-reduction> (accessed 3 May 2021).
- 8 Harm Reduction. 2021.<https://ontario.cmha.ca/harm-reduction/> (accessed 3 May 2021).
- 9 Canada H. Harm Reduction: Canadian Drugs and Substances Strategy. aem. 2017.<https://www.canada.ca/en/health-canada/services/substance-use/canadian-drugs-substances-strategy/harm-reduction.html> (accessed 3 May 2021).
- 10 Platt L, Minozzi S, Reed J, *et al.* Needle and syringe programmes and opioid substitution therapy for preventing HCV transmission among people who inject drugs: findings from a Cochrane Review and meta-analysis. *Addiction* 2018;**113**:545–63. doi:[10.1111/add.14012](https://doi.org/10.1111/add.14012)
- 11 Csete J, Elliott R. Consumer protection in drug policy: The human rights case for safe supply as an element of harm reduction. *International Journal of Drug Policy* 2021;**91**:102976. doi:[10.1016/j.drugpo.2020.102976](https://doi.org/10.1016/j.drugpo.2020.102976)
- 12 Olding M, Ivsins A, Mayer S, *et al.* A Low-Barrier and Comprehensive Community-Based Harm-Reduction Site in Vancouver, Canada. *American journal of public health* 2020;**110**:833–5. doi:<http://dx.doi.org.ezproxy.library.dal.ca/10.2105/AJPH.2020.305612>
- 13 Courser MW, Raffle H. With crisis comes opportunity: Unanticipated benefits resulting from pivots to take-home naloxone (THN) programs during the COVID-19 pandemic. *Journal of Substance Abuse Treatment* 2021;**122**:108220. doi:[10.1016/j.jsat.2020.108220](https://doi.org/10.1016/j.jsat.2020.108220)
- 14 Sharma M, Lamba W, Cauderella A, *et al.* Harm reduction in hospitals. *Harm Reduct J* 2017;**14**:1–4. doi:[10.1186/s12954-017-0163-0](https://doi.org/10.1186/s12954-017-0163-0)
- 15 Elphinston RA, Sterling M, Leung J, *et al.* Brief Psychological Interventions for Reducing Prescription Opioid Use, Related Harm, and Pain Intensity in Patients With Chronic Pain: A Systematic Review and Assessment of Patient Interest. *Clin J Pain* 2021;**37**:270–80. doi:[10.1097/AJP.0000000000000908](https://doi.org/10.1097/AJP.0000000000000908)

- 1  
2  
3 16 Sharpe S, Kool B, Whittaker R, *et al.* Effect of a text message intervention on alcohol-related harms and  
4 behaviours: secondary outcomes of a randomised controlled trial. *BMC Res Notes* 2019;**12**:267.  
5 doi:10.1186/s13104-019-4308-y  
6  
7 17 Saunders E, Metcalf SA, Walsh O, *et al.* “You can see those concentric rings going out”: Emergency  
8 personnel’s experiences treating overdose and perspectives on policy-level responses to the opioid crisis  
9 in New Hampshire. *Drug and Alcohol Dependence* 2019;**204**:107555.  
10 doi:10.1016/j.drugalcdep.2019.107555  
11  
12 18 Calcaterra SL, Binswanger IA, Edelman EJ, *et al.* The impact of access to addiction specialist on attitudes,  
13 beliefs and hospital-based opioid use disorder related care: A survey of hospitalist physicians. *Substance*  
14 *Abuse* 2020;**0**:1–9. doi:10.1080/08897077.2020.1748169  
15  
16 19 Strike C, Robinson S, Guta A, *et al.* Illicit drug use while admitted to hospital: Patient and health care  
17 provider perspectives. *PloS one* 2020;**15**:e0229713.  
18 doi:http://dx.doi.org.ezproxy.library.dal.ca/10.1371/journal.pone.0229713  
19  
20 20 Hobden KL, Cunningham JA. Barriers to the dissemination of four harm reduction strategies: a survey of  
21 addiction treatment providers in Ontario. *Harm Reduct J* 2006;**3**:1–20. doi:10.1186/1477-7517-3-35  
22  
23 21 Aromataris E, Munn Z, editors. *JBIM Manual for Evidence Synthesis*. JBI 2020. doi:10.46658/JBIMES-20-01  
24  
25 22 Government of Canada CI of HR. Guide to Knowledge Translation Planning at CIHR: Integrated and End-of-  
26 Grant Approaches - CIHR. 2012.https://cihr-irsc.gc.ca/e/45321.html (accessed 7 Jul 2021).  
27  
28 23 Godin K, Stapleton J, Kirkpatrick SI, *et al.* Applying systematic review search methods to the grey  
29 literature: a case study examining guidelines for school-based breakfast programs in Canada. *Systematic*  
30 *Reviews* 2015;**4**:138. doi:10.1186/s13643-015-0125-0  
31  
32 24 Tricco AC, Lillie E, Zarin W, *et al.* PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and  
33 Explanation. *Ann Intern Med* 2018;**169**:467–73. doi:10.7326/M18-0850  
34  
35 25 Hong QN, Pluye P, Fabregues S, *et al.* Mixed Methods Appraisal Tool (MMAT) Version 2018: User Guide.  
36 2018.http://mixedmethodsappraisaltoolpublic.pbworks.com/w/file/attach/127916259/MMAT\_2018\_criter  
37 ia-manual\_2018-08-01\_ENG.pdf (accessed 5 Jul 2021).  
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Supplementary Table 1: Search strategy MEDLINE All (Ovid); Embase (Elsevier Embase.com); CINAHL with Full Text (EBSCOhost); PsycINFO (EBSCOhost); Scopus (Elsevier Scopus.com)

	MEDLINE All (Ovid)	Embase (Elsevier Embase.com)	CINAHL with Full Text (EBSCOhost) - search mode: Boolean/Phrase	PsycINFO (EBSCOhost)	Scopus (Elsevier Scopus.com)
1	Harm Reduction/ (harm* adj2	1 'harm reduction'/exp (harm* NEAR/2	1 (MH "Harm Reduction")	1 DE "Harm Reduction"	
2	reduc*).ti,ab,kw,kf.	2 reduc*):ti,ab,kw	2 (harm* N2 reduc*)	2 (harm* N2 reduc*)	1
3	(harm* adj2 (minimiz* or minimis*)):ti,ab,kw, kf.	3 (harm* NEAR/2 (minimiz* OR minimis*)):ti,ab,kw	3 (harm* N2 (minimiz* OR minimis*))	3 (harm* N2 (minimiz* OR minimis*))	TITLE-ABS-KEY((harm* W/2 (reduc* OR minimiz* OR minimis*)) OR stigma* OR destigma* OR "de-stigma" OR (addiction* W/2 (consultation* OR counsel* OR therap* OR treatment* OR service*)) OR "medication assisted therap*" OR "medication assisted treatment*" OR "opiate substitution*" OR "opiate replacement*" OR "opiate substitution*" OR "opiate replacement*" OR "opiate agonist*" OR "substitution therap*" OR methadone OR buprenorphine OR naloxone OR "non-abstinence" OR ((needle* OR syringe*) W/2 (exchange* OR clean* OR steril*)) OR ((supervized OR supervised) W/2 (inject* OR consum*)) OR (consumption W/3 site) OR "overdose prevention site*" OR "safe supply" OR ((care OR healthcare) W/2 (retention OR retain* OR continuity OR continuum)) OR aftercare OR handoff OR "hand-off" OR "patient transition*" OR "patient transfer*" OR "leav* against medical advice" OR "left against medical advice" OR (leav* W/2 early) OR (left W/2 early) OR abscond* OR (early W/1 discharge*) OR ((staff OR worker* OR employee* OR system) W/3 (cultur* OR attitude* OR belief* OR misconception* OR perception* OR perceiv* OR resist* OR educat* OR train* OR language)))
4	or/1-3 (stigma* or destigma* or de-stigma*):ti,ab,kw,kf.	4 #1 OR #2 OR #3	4 S1 OR S2 OR S3	4 S1 OR S2 OR S3	
5	(addiction* adj2 (consultation* or counsel* or therap* or treatment* or service*)):ti,ab,kw, kf.	5 (stigma* OR destigma* OR 'de-stigma*'):ti,ab,kw	5 (stigma* OR destigma* OR "de-stigma*")	5 (stigma* OR destigma* OR "de-stigma*")	
6	Opiate Substitution Treatment/ (medication assisted therap* or medication assisted treatment*):ti,ab,kw, kf.	6 (addiction* NEAR/2 (consultation* OR counsel* OR therap* OR treatment* OR service*)):ti,ab,kw	6 (addiction* N2 (consultation* OR counsel* OR therap* OR treatment* OR service*))	6 (addiction* N2 (consultation* OR counsel* OR therap* OR treatment* OR service*))	
7	Opiate Substitution Treatment/ (medication assisted therap* or medication assisted treatment*):ti,ab,kw, kf.	7 'opiate substitution treatment'/exp	7 (MH "Addictions Nursing")	7 DE "Medication-Assisted Treatment"	
8	Opiate Substitution Treatment/ (medication assisted therap* or medication assisted treatment*):ti,ab,kw, kf.	8 'methadone treatment'/exp	8	8 DE "Methadone Maintenance"	
9	Opiate Substitution Treatment/ (medication assisted therap* or medication assisted treatment*):ti,ab,kw, kf.	9 ('medication assisted therap* OR 'medication assisted treatment*'):ti,ab,kw	9 ("medication assisted therap*" OR "medication assisted treatment*")	9 ("medication assisted therap*" OR "medication assisted treatment*")	
10	Opiate Substitution Treatment/ (medication assisted therap* or medication assisted treatment*):ti,ab,kw, kf.	10 ('opiate substitution*' OR 'opiate replacement*' OR 'opiate substitution*' OR 'opiate replacement*' OR 'opiate agonist\$'):ti,ab,kw	10 ("opiate substitution*" OR "opiate replacement*" OR "opiate substitution*" OR "opiate replacement*" OR "opiate agonist#")	10 ("opiate substitution*" OR "opiate replacement*" OR "opiate substitution*" OR "opiate replacement*" OR "opiate agonist#")	
11	Opiate Substitution Treatment/ (medication assisted therap* or medication assisted treatment*):ti,ab,kw, kf.	11 'substitution therap*':ti,ab,kw	11 "substitution therap*"	11 "substitution therap*"	



1	(methadone or buprenorphine or naloxone).ti,ab,kw,	(methadone OR buprenorphine OR naloxone):ti,ab,kw	(methadone OR buprenorphine OR naloxone)	(methadone OR buprenorphine OR naloxone)
2				
3	11 kf.	12	11	12
4	non-			
5	abstinence.ti,ab,kw			
6	12 ,kf.	13 ('non-abstinence'):ti,ab,kw	12 ("non-abstinence")	13 ("non-abstinence")
7		14 OR #7 OR #8 OR #9 OR #10 OR #11	12 S7 OR S8 OR S9 OR S10 OR	13 S7 OR S8 OR S9 OR S10 OR S11 OR
8	13 or/7-12	14	13 S11 OR S12	14 S12 OR S13
9	Needle-Exchange		14 (MH "Needle Exchange	15 DE "Needle Exchange Programs"
10	14 Programs/		14 Programs")	
11	((needle* or syringe*) adj2	((needle* OR syringe*) NEAR/2	((needle* OR syringe*) N2	((needle* OR syringe*) N2
12	(exchange* or clean* or	(exchange* OR clean* OR	(exchange* OR clean* OR	(exchange* OR clean* OR steril*))
13	15 steril*).ti,ab,kw,kf.	15 steril*)):ti,ab,kw	15 steril*))	16
14	(supervi?ed adj2			
15	(inject* or consum*)):ti,ab,kw,	(supervi?ed NEAR/2 (inject*	(supervi?ed N2 (inject* OR	(supervi?ed N2 (inject* OR
16	16 kf.	16 OR consum*)):ti,ab,kw	16 consum*))	17 consum*))
17	(consumption adj3	(consumption NEAR/3	(consumption N3 site#)	(consumption N3 site#)
18	17 site?).ti,ab,kw,kf.	17 site\$):ti,ab,kw	17	18
19	overdose	'overdose prevention	'overdose prevention site#')	'overdose prevention site#')
20	21 prevention			
21	18 site?.ti,ab,kw,kf.	18 site\$:ti,ab,kw	18 ("overdose prevention site#")	19 ("overdose prevention site#")
22	safe			
23	19 supply.ti,ab,kw,kf.	19 'safe supply':ti,ab,kw	19 ("safe supply")	20 ("safe supply")
24		#15 OR #16 OR #17 OR #18 OR	S14 OR S15 OR S16 OR S17 OR	S15 OR S16 OR S17 OR S18 OR S19
25	20 or/14-19	20 #19	20 S18 OR S19	21 OR S20
26	exp Continuity of		(MH "Continuity of Patient	DE "Continuum of Care"
27	21 Patient Care/	21 'retention in care'/exp	21 Care+")	22 DE "Discharge Planning"
28				23 DE "Aftercare"
29				24
30	((care or healthcare) adj2	((care OR healthcare) NEAR/2	((care OR healthcare) N2	((care OR healthcare) N2 (retention
31	(retention or retain* or	(retention OR retain* OR	(retention OR retain* OR	OR retain* OR continuity OR
32	continuity or continuum)).ti,ab,k	continuity OR	continuity OR continuum))	continuum))
33	22 w,kf.	22 continuum)):ti,ab,kw	22	25
34	(aftercare or handoff or hand-off	(aftercare OR handoff OR	(aftercare OR handoff OR	(aftercare OR handoff OR "hand-off"
35	39 or patient	'hand-off' OR 'patient	"hand-off" OR "patient	OR "patient transition*" OR "patient
36	40 transition* or	transition*' OR 'patient	transition*" OR "patient	transfer*")
37	41 23 patient	23 transfer*)):ti,ab,kw	23 transfer*")	26
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1		transfer*).ti,ab,kw, kf.					
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4		medical advice or					
5		left against medical					
6		advice or (leav*					
7		adj2 early) or (left	('leav* against medical advice'	("leav* against medical			
8		adj2 early) or	OR 'left against medical advice'	advice" OR "left against	("leav* against medical advice" OR		
9		abscond* or (early	OR (leav* NEAR/2 early) OR	medical advice" OR (leav* N2	"left against medical advice" OR		
10		adj	(left NEAR/2 early) OR	early) OR (left N2 early) OR	(leav* N2 early) OR (left N2 early)		
11	24	discharge*).ti,ab,k w,kf.	abscond* OR (early NEAR/1	abscond* OR (early N1	OR abscond* OR (early N1		
12			discharge*)):ti,ab,kw	discharge*))	discharge*))		
13	25	or/21-24	25 #21 OR #22 OR #23 OR #24	25 S21 OR S22 OR S23 OR S24	28 OR S27		
14		((staff or worker*					
15		or employee* or					
16		system) adj3					
17		(cultur* or					
18		attitude* or belief*					
19		or misconception*	((staff OR worker* OR	((staff OR worker* OR			
20		or perception* or	employee* OR system)	employee* OR system) N3			
21		perceiv* or resist*	NEAR/3 (cultur* OR attitude*	(cultur* OR attitude* OR	((staff OR worker* OR employee*		
22		or educat* or	OR belief* OR misconception*	belief* OR misconception* OR	OR system) N3 (cultur* OR attitude*		
23		train* or	OR perception* OR perceiv*	perception* OR perceiv* OR	OR belief* OR misconception* OR		
24	26	language)).ti,ab,kw, kf.	OR resist* OR educat* OR	resist* OR educat* OR train*	OR perception* OR perceiv* OR resist*		
25			train* OR language)):ti,ab,kw	OR language))	OR educat* OR train* OR language))		
26	27	or/4-6,13,20,25-26	27 OR #4 OR #5 OR #6 OR #14 OR #20	27 S4 OR S5 OR S6 OR S13 OR	29 S4 OR S5 OR S6 OR S14 OR S21 OR		
27		exp	OR #25 OR #26	27 S20 OR S25 OR S26	30 S28 OR S29		
28	28	Hospitalization/	28 'hospitalization'/exp	28 (MH "Hospitalization")	31 DE "Hospitalization"		
29	29	Inpatients/	29 'hospital patient'/de	29 (MH "Inpatients")	32 DE "Hospital Admission"		
30					33 DE "Psychiatric Hospitalization"		
31					34 DE "Hospitalized Patients"		
32		(admitted or				2	TITLE-ABS-KEY(admitted OR admission* OR
33		admission* or					hospitalis* OR hospitaliz* OR inpatient* OR
34		hospitalis* or					overnight* OR "emergency department"
35		hospitaliz* or					OR "emergency room*" OR "emergency
36		inpatient* or in-	(admitted OR admission* OR	(admitted OR admission* OR	(admitted OR admission* OR		unit*" OR "emergency ward*" OR "accident
37		patient* or	hospitalis* OR hospitaliz* OR	hospitalis* OR hospitaliz* OR	hospitalis* OR hospitaliz* OR		and emergency")
38		overnight*).ti,ab,k	inpatient* OR 'in-patient*' OR	inpatient* OR overnight*)	inpatient* OR overnight*)		
39	30	w,kf.	30 overnight*)):ti,ab,kw	30	35		
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	(emergency department* or emergency room* or emergency unit? or emergency ward* or "accident and emergency").ti,ab,kw,kf.	('emergency department*' OR 'emergency room*' OR 'emergency unit\$' OR 'emergency ward*' OR 'accident and emergency'):ti,ab,kw	("emergency department*" OR "emergency room*" OR "emergency unit#" OR "emergency ward*" OR "accident and emergency")	("emergency department*" OR "emergency room*" OR "emergency unit#" OR "emergency ward*" OR "accident and emergency")	
31					
32	or/28-31	#28 OR #29 OR #30 OR #31	S28 OR S29 OR S30 OR S31	OR S36	
33	Alcoholics/	'drug dependence'/exp	(MH "Substance Abusers+")	DE "Drug Abuse"	
34	Drug Users/	'injection drug user'/exp	(MH "Substance Dependence")	DE "Drug Dependency"	
		'recreational drug use'/exp		DE "Opioid Use Disorder"	
				DE "Alcohol Use Disorder"	
				DE "Substance Use Disorder"	3
35	("people who use drugs" or "persons who use drugs" or pwud).ti,ab,kw,kf.	('people who use drugs' OR 'persons who use drugs' OR pwud):ti,ab,kw	("people who use drugs" OR "persons who use drugs" OR pwud)	("people who use drugs" OR "persons who use drugs" OR pwud)	TITLE-ABS-KEY("people who use drugs" OR "persons who use drugs" OR pwud OR "people who inject drugs" OR "persons who inject drugs" OR "people who use alcohol" OR "persons who use alcohol" OR pwua OR ((drug OR drugs OR substance* OR opioid* OR opiate* OR alcohol) W/2 (abuse* OR "use" OR user OR users* OR addict* OR involve* OR depend* OR habit*)) OR alcoholic* OR alcoholism OR addict OR addicts OR addiction* OR overdose*)
36	("people who inject drugs" or "persons who inject drugs").ti,ab,kw,kf.	('people who inject drugs' OR 'persons who inject drugs'):ti,ab,kw	("people who inject drugs" OR "persons who inject drugs")	("people who inject drugs" OR "persons who inject drugs")	
37	("people who use alcohol" or "persons who use alcohol" or pwua).ti,ab,kw,kf.	('people who use alcohol' OR 'persons who use alcohol' OR pwua):ti,ab,kw	("people who use alcohol" OR "persons who use alcohol" OR pwua)	("people who use alcohol" OR "persons who use alcohol" OR pwua)	
38	((drug or drugs or substance* or opioid* or opiate* or alcohol) adj2 (abuse* or "use" or user or users* or addict* or involve* or depend* or habit*)):ti,ab,kw,kf.	((drug OR drugs OR substance* OR opioid* OR opiate* OR alcohol) NEAR/2 (abuse* OR 'use' OR user OR users* OR addict* OR involve* OR depend* OR habit*)):ti,ab,kw	((drug OR drugs OR substance* OR opioid* OR opiate* OR alcohol) N2 (abuse* OR "use" OR user OR users* OR addict* OR involve* OR depend* OR habit*))	((drug OR drugs OR substance* OR opioid* OR opiate* OR alcohol) N2 (abuse* OR "use" OR user OR users* OR addict* OR involve* OR depend* OR habit*))	
39	(alcoholic* or alcoholism).ti,ab,kw,kf.	(alcoholic* OR alcoholism):ti,ab,kw	(alcoholic* OR alcoholism)	(alcoholic* OR alcoholism)	
40	(addict or addicts or addiction*).ti,ab,kw,kf.	(addict OR addicts OR addiction*):ti,ab,kw	(addict OR addicts OR addiction*)	(addict OR addicts OR addiction*)	4

1	41	overdose*.ti,ab,kw, kf.	42	overdose*.ti,ab,kw #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40 OR #41 OR #42	41	overdose* S33 OR S34 OR S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41	49	overdose* S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48 OR S49	5	#4 AND NOT (INDEX(medline) OR INDEX(embase))
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4	42	or/33-41	43	#41 OR #42	42	S41	50	S47 OR S48 OR S49		
5	43	27 and 32 and 42	44	#27 AND #32 AND #43	43	S27 OR S32 OR S42	51	S30 OR S37 OR S50		
6										
7		<b>6519 results 2021-07-07</b>		<b>8795 results 2021-07-07</b>		<b>2358 results 2021-07-07</b>		<b>3568 results 2021-07-07</b>		<b>479 results 2021-07-07</b>
8		<i>Amended search</i>		<i>Amended search</i>		<i>Amended search</i>		<i>Amended search</i>		<i>Amended search</i>
9		<i>2021-09-15</i>		<i>2021-09-15</i>		<i>2021-09-15</i>		<i>2021-09-15</i>		<i>2021-09-15</i>
10		<b>6698 results 2021-09-15</b>		<b>9379 results 2021-09-15</b>		<b>2581 results 2021-09-15</b>		<b>3801 results 2021-09-15</b>		<b>506 results 2021-09-15</b>
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((TITLE-ABS-KEY((harm\* W/2 (reduc\* OR  
minimiz\* OR minimis\*)) OR stigma\* OR  
destigma\* OR "de-stigma" OR (addiction\*  
W/2 (consultation\* OR counsel\* OR therap\*  
OR treatment\* OR service\*)) OR  
"medication assisted therap\*" OR  
"medication assisted treatment\*" OR  
"opiate substitution\*" OR "opiate  
replacement\*" OR "opioid\* substitution\*"  
OR "opioid\* replacement\*" OR "opioid  
agonist\*" OR "substitution therap\*" OR  
methadone OR buprenorphine OR naloxone  
OR "non-abstinence" OR ((needle\* OR  
syringe\*) W/2 (exchange\* OR clean\* OR  
steril\*)) OR ((supervized OR supervised) W/2  
(inject\* OR consum\*)) OR (consumption  
W/3 site) OR "overdose prevention site\*"  
OR "safe supply" OR ((care OR healthcare)  
W/2 (retention OR retain\* OR continuity OR  
continuum)) OR aftercare OR handoff OR  
"hand-off" OR "patient transition\*" OR  
"patient transfer\*" OR "leav\* against  
medical advice" OR "left against medical  
advice" OR (leav\* W/2 early) OR (left W/2  
early) OR abscond\* OR (early W/1  
discharge\*) OR ((staff OR worker\* OR  
employee\* OR system) W/3 (cultur\* OR  
attitude\* OR belief\* OR misconception\* OR  
perception\* OR perceiv\* OR resist\* OR  
educat\* OR train\* OR language)))) AND  
(TITLE-ABS-KEY(admitted OR admission\* OR  
hospitalis\* OR hospitaliz\* OR inpatient\* OR  
overnight\* OR "emergency department\*"  
OR "emergency room\*" OR "emergency  
unit\*" OR "emergency ward\*" OR "accident  
and emergency")) AND (TITLE-ABS-  
KEY("people who use drugs" OR "persons  
who use drugs" OR pwud OR "people who  
inject drugs" OR "persons who inject drugs"  
OR "people who use alcohol" OR "persons  
who use alcohol" OR pwua OR ((drug OR  
drugs OR substance\* OR opioid\* OR opiate\*  
OR alcohol) W/2 (abuse\* OR "use" OR user  
OR users\* OR addict\* OR involve\* OR  
depend\* OR habit\*)) OR alcoholic\* OR  
alcoholism OR addict OR addicts OR

addiction\* OR overdose\*)) AND NOT  
(INDEX(medline) OR INDEX(embase))

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For peer review only

Supplementary Table 2: Harm Reduction Scoping Review Extraction Form (Draft)

Author, Year	Country	Study Design	Objective	Setting	Participant Characteristics (sample size, age, gender)	Description of Harm Reduction Strategy	Barriers or Enablers to Implementation		Patient-related Outcomes Measured		Health-related outcomes measured			Description of Main Results
							Reported Barriers	Reported Enablers	Satisfaction level	Experience of care	LOS	Mortality Rate	Re-admission rate	

LOS: length of stay

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For peer review only



**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	Page #
<b>ADMINISTRATIVE INFORMATION</b>			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	N/A
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	5
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	1
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	8
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	N/A
Support:			
Sources	5a	Indicate sources of financial or other support for the review	8
Sponsor	5b	Provide name for the review funder and/or sponsor	8
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	N/A
<b>INTRODUCTION</b>			
Rationale	6	Describe the rationale for the review in the context of what is already known	4
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	4-5
<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	5
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	5-6
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	Suppl Table 1

Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	6-7
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)	6-7
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	7
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	7 – Suppl Table 2
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	7
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	7
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	N/A
	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 <sup>2</sup> , Kendall’s τ)	N/A
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	N/A
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	7
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	N/A
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	N/A

**\* 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.**

*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.*