

1 **APPENDIX 1: PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist:**
 2 **recommended items to address in a systematic review protocol***

Section and topic	Item No	Checklist item	Reported on page # of an original manuscript
ADMINISTRATIVE INFORMATION			
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	N/A ^a
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	12
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	12
Sponsor	5b	Provide name for the review funder and/or sponsor	12
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	12
INTRODUCTION			
Rationale	6	Describe the rationale for the review in the context of what is already known	3
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	4
METHODS			
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	5-6
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

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	5 & Appx 1
Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	5
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
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	6
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	6
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	7-10
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	N/A ^b
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	10
	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 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	10
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

1 NAppx: appendix, N/A: not applicable

2 a: Scoping review is not eligible for including in PROSPERO.

3 b: Risk of bias assessment is option for a scoping review. Data synthesis is not also applied to such a review.

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6 *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*
7 *review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.*

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APPENDIX 2: PrEP search strategy for PRS Database

- ❖ Databases Searched (platform):
 1. MEDLINE (OVID)
 2. EMBASE (OVID)
 3. PsycINFO (OVID)
 4. CINAHL (EBSCOhost)
- ❖ Manual Search:
 1. Hand Search 52 Journals (ongoing)
 2. Check reference list of included citations (ongoing)
 3. PubMed ad hoc keyword searches (ongoing)
 4. Table of contents alerts from journals (ongoing)
- ❖ Search Development: 24 Included Citations
 1. Anderson PL, Glidden DV, Liu A, Buchbinder S, Lama JR, Guanira JV, *et al.* Emtricitabine-tenofovir concentrations and pre-exposure prophylaxis efficacy in men who have sex with men. *Sci Transl Med* 2012,4:151ra125.
 2. Baeten JM, Donnell D, Ndase P, Mugo NR, Campbell JD, Wangisi J, *et al.* Antiretroviral prophylaxis for HIV prevention in heterosexual men and women. *N Engl J Med* 2012,367:399-410.
 3. Flash C, Landovitz R, Giler RM, Ng L, Magnuson D, Wooley SB, *et al.* Two years of Truvada for pre-exposure prophylaxis utilization in the US. *J Int AIDS Soc* 2014,17:19730.
 4. Golub SA, Kowalczyk W, Weinberger CL, Parsons JT. Preexposure prophylaxis and predicted condom use among high-risk men who have sex with men. *J Acquir Immune Defic Syndr* 2010,54:548-555.
 5. Grant RM. Antiretroviral agents used by HIV-uninfected persons for prevention: pre- and postexposure prophylaxis. *Clin Infect Dis* 2010,50 Suppl 3:S96-101.
 6. Grant RM, Anderson PL, McMahan V, Liu A, Amico KR, Mehrotra M, *et al.* Uptake of pre-exposure prophylaxis, sexual practices, and HIV incidence in men and transgender women who have sex with men: a cohort study. *Lancet Infect Dis* 2014,14:820-829.
 7. Grant RM, Buchbinder S, Cates W, Jr., Clarke E, Coates T, Cohen MS, *et al.* AIDS. Promote HIV chemoprophylaxis research, don't prevent it. *Science* 2005,309:2170-2171.
 8. Hoots BE, Finlayson T, Nerlander L, Paz-Bailey G. Willingness to Take, Use of, and Indications for Pre-exposure Prophylaxis Among Men Who Have Sex With Men-20 US Cities, 2014. *Clin Infect Dis* 2016,63:672-677
 9. Hosek SG, Siberry G, Bell M, Lally M, Kapogiannis B, Green K, *et al.* The acceptability and feasibility of an HIV preexposure prophylaxis (PrEP) trial with young men who have sex with men. *J Acquir Immune Defic Syndr* 2013,62:447-456.
 10. Kellerman SE, Hutchinson AB, Begley EB, Boyett BC, Clark HA, Sullivan P. Knowledge and use of HIV pre-exposure prophylaxis among attendees of minority gay pride events, 2004. *J Acquir Immune Defic Syndr* 2006,43:376-377.
 11. Khanna AS, Michaels S, Skaathun B, Morgan E, Green K, Young L, *et al.* Preexposure Prophylaxis Awareness and Use in a Population-Based Sample of Young Black Men Who Have Sex With Men. *JAMA Intern Med* 2016,176:136-138.

12. Khawcharoenporn T, Kendrick S, Smith K. HIV risk perception and preexposure prophylaxis interest among a heterosexual population visiting a sexually transmitted infection clinic. *AIDS Patient Care STDS* 2012,26:222-233.
13. Kuo I, Olsen H, Patrick R, Phillips G, 2nd, Magnus M, Opoku J, *et al.* Willingness to use HIV pre-exposure prophylaxis among community-recruited, older people who inject drugs in Washington, DC. *Drug Alcohol Depend* 2016,164:8-13.
14. Kwakwa HA, Bessias S, Sturgis D, Mvula N, Wahome R, Coyle C, *et al.* Attitudes Toward HIV Pre-Exposure Prophylaxis in a United States Urban Clinic Population. *AIDS Behav* 2016,20:1443-1450.
15. Liu A, Glidden DV, Anderson PL, Amico KR, McMahan V, Mehrotra M, *et al.* Patterns and correlates of PrEP drug detection among MSM and transgender women in the Global iPrEx Study. *J Acquir Immune Defic Syndr* 2014,67:528-537.
16. Liu AY, Vittinghoff E, Chillag K, Mayer K, Thompson M, Grohskopf L, *et al.* Sexual risk behavior among HIV-uninfected men who have sex with men participating in a tenofovir preexposure prophylaxis randomized trial in the United States. *J Acquir Immune Defic Syndr* 2013,64:87-94.
17. Marcus JL, Glidden DV, Mayer KH, Liu AY, Buchbinder SP, Amico KR, *et al.* No evidence of sexual risk compensation in the iPrEx trial of daily oral HIV preexposure prophylaxis. *PLoS One* 2013,8:e81997.
18. Psaros C, Haberer JE, Katabira E, Ronald A, Tumwesigye E, Campbell JD, *et al.* An intervention to support HIV preexposure prophylaxis adherence in HIV-serodiscordant couples in Uganda. *J Acquir Immune Defic Syndr* 2014,66:522-529.
19. Smith DK, Toledo L, Smith DJ, Adams MA, Rothenberg R. Attitudes and program preferences of African-American urban young adults about pre-exposure prophylaxis (PrEP). *AIDS Educ Prev* 2012,24:408-421.
20. Snowden JM, Chen YH, McFarland W, Raymond HF. Prevalence and characteristics of users of pre-exposure prophylaxis (PrEP) among men who have sex with men, San Francisco, 2014 in a cross-sectional survey: implications for disparities. *Sex Transm Infect* 2017,93:52-55.
21. Stirratt MJ, Gordon CM. Adherence to biomedical HIV prevention methods: considerations drawn from HIV treatment adherence research. *Curr HIV/AIDS Rep* 2008,5:186-192.
22. Tangmunkongvorakul A, Chariyalertsak S, Amico KR, Saokhieo P, Wannalak V, Sangangamsakun T, *et al.* Facilitators and barriers to medication adherence in an HIV prevention study among men who have sex with men in the iPrEx study in Chiang Mai, Thailand. *AIDS Care* 2013,25:961-967.
23. Whiteside YO, Harris T, Scanlon C, Clarkson S, Duffus W. Self-perceived risk of HIV infection and attitudes about preexposure prophylaxis among sexually transmitted disease clinic attendees in South Carolina. *AIDS Patient Care STDS* 2011,25:365-370.
24. Wilson EC, Jin H, Liu A, Raymond HF. Knowledge, Indications and Willingness to Take Pre-Exposure Prophylaxis among Transwomen in San Francisco, 2013. *PLoS One* 2015,10:e0128971.

❖ **Full electronic search strategy for Prevention Research Synthesis (PRS) Database, including any limits used**

1. Search strategy for Prevention Research Synthesis (PRS) Database

➤ Pre-exposure Prophylaxis (PrEP) 2000 – 2017

1. MEDLINE (OVID)
2. CINAHL (EBSCOhost)
3. EMBASE (OVID)
4. PsycINFO (OVID)

Notes:

- Each search update is implemented annually for the previous two years to cover publication lag.
- The manual search for citations includes a hand search of journals with a high yield of subject specific citations, contacts in the field and reference list checks.
- More information on the search methods for the Prevention Research Synthesis (PRS) database can be found here <http://www.cdc.gov/hiv/dhap/prb/prs/>

MEDLINE (OVID) PrEP Search

/ = MeSH term

ti = title, ab = abstract

\$ = truncation, adj = adjacency

HIV OR AIDS OR STD MESH AND KEYWORDS

1. HIV infections/
2. AIDS/
3. Sexually Transmitted Diseases/
4. HIV seropositivity/
5. HIV seronegativity/
6. AIDS serodiagnosis/
7. Hepatitis C/
8. HIV.ti,ab
9. (AIDS not hearing).ti,ab
10. Hepatitis C.ti,ab
11. HCV.ti,ab

CINAHL (EBSCOhost) PrEP search

MH = CINAHL Headings

TI = title, AB = abstract

* = truncation

HIV OR AIDS OR STD MESH AND KEYWORDS

1. (MH "HIV Infections")
2. (MH "Acquired Immunodeficiency Syndrome")
3. (MH "Sexually Transmitted Diseases")
4. (MH "HIV Seropositivity")
5. (MH "HIV Seronegativity")
6. (MH "AIDS Serodiagnosis")
7. (MH "Hepatitis C")
8. TI HIV OR AB HIV

12. Sexually transmitted disease\$.ti,ab
13. Sexually transmitted infection\$.ti,ab
14. (STD or STDs or STI or STIs).ti,ab
15. or/1-14

PREP MESH AND KEYWORDS

16. Pre-Exposure Prophylaxis/
 17. Chemoprevention/
 18. Pre exposure prophylaxis.ti,ab
 19. Preexposure prophylaxis.ti,ab
 20. PrEP.ti,ab
 21. (Chemoprophylaxis or Chemo prophylaxis or chemoprevention).ti,ab
 22. or/16-21
 23. 15 and 22
- Years = 2000 to present

9. TI ((AIDS not hearing)) OR AB ((AIDS not hearing))
10. TI Sexually transmitted disease* OR AB Sexually transmitted disease*
11. TI Sexually transmitted infection* OR AB Sexually transmitted infection*
12. TI (STD or STDs or STI or STIs) OR AB (STD or STDs or STI or STIs)
13. TI Hepatitis C OR AB Hepatitis C
14. TI HCV OR AB HCV
15. or/1-14

PREP MESH AND KEYWORDS

16. (MH "Pre-Exposure Prophylaxis")
17. TI Pre exposure prophylaxis OR AB Pre exposure prophylaxis

18. TI Preexposure prophylaxis OR AB
Preexposure prophylaxis
19. TI PrEP OR AB PrEP
20. (MH "Chemoprevention")
21. TI Chemoprophylaxis OR AB
Chemoprophylaxis

22. TI Chemo prophylaxis OR AB Chemo
prophylaxis
23. TI Chemoprevention OR AB
Chemoprevention
24. or/16-23
25. 15 AND 24
Years = 2000 to present

EMBASE (OVID) PrEP search

/ = MeSH term
 ti = title, ab = abstract
 \$ = truncation

HIV OR AIDS OR STD MESH AND KEYWORDS

1. Human Immunodeficiency Virus Infection/
2. Acquired Immune Deficiency Syndrome/
3. Sexually Transmitted Diseases/
4. Serodiagnosis/
5. Hepatitis C virus/
6. HIV.ti,ab
7. (AIDS not hearing).ti,ab
8. Hepatitis C.ti,ab
9. HCV.ti,ab

PsycINFO OVID PrEP search

/ = MeSH term
 ti = title, ab = abstract
 \$ = truncation

HIV OR AIDS OR STD MESH AND KEYWORDS

1. HIV/
2. AIDS/
3. AIDS Prevention/
4. Sexually Transmitted Diseases/
5. Hepatitis/
6. HIV.ti,ab
7. (AIDS not hearing).ti,ab
8. Hepatitis C.ti,ab
9. HCV.ti,ab
10. Sexually transmitted disease\$.ti,ab
11. Sexually transmitted infection\$.ti,ab
12. (STD or STDs or STI or STIs).ti,ab
13. or/1-12

PREP MESH AND KEYWORDS

14. Pre exposure prophylaxis.ti,ab

10. Sexually transmitted disease\$.ti,ab
11. Sexually transmitted infection\$.ti,ab
12. (STD or STDs or STI or STIs).ti,ab
13. or/1-12

PREP MESH AND KEYWORDS

14. Pre-Exposure Prophylaxis/
15. Pre exposure prophylaxis.ti,ab
16. Preexposure prophylaxis.ti,ab
17. PrEP.ti,ab
18. (Chemoprophylaxis or Chemo prophylaxis
or chemoprevention).ti,ab
19. or/14-18
20. 13 and 19
Years: 2000 – present

15. Preexposure prophylaxis.ti,ab
16. PrEP.ti,ab
17. (Chemoprophylaxis or chemo prophylaxis or
chemoprevention).ti,ab
18. or/14-17
19. 13 and 18
Years = 2000 to present

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❖ **Query of the PRS Database**

- Citations tagged by PRS coders as the following
 - ((<Specify HIV/AIDS/STD/HBV/HCV prevention focus> = ([PrEP/PEP] OR [PrEP]))