PRISMA Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Pg 1
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Pg 2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Pg 4 (2nd paragraph of Intro)
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Pg 4 (last paragraph of intro)
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Pg 5 (selection of studies)
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Pg 4 (search strategy) + Appendix 2
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Pg 5 (selection of studies)
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Pg 5 (data extraction)
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	Pg 5 (data extraction)
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	Pg 5 (data extraction)
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	Pg 5 (critical appraisal)
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	N/A
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	Pg 5 (data synthesis)

Section and Topic	Item #	Checklist item	Location where item is reported
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	N/A
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	N/A
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	Pg 5 (synthesis of results)
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	N/A
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	N/A
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	N/A
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	N/A
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Pg 5 (description of included studies)
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	N/A
Study characteristics	17	Cite each included study and present its characteristics.	Pgs 6-8 (Table 1)
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Appendix 3
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	N/A
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	N/A
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	N/A
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	N/A
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	N/A
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	N/A
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	N/A
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of	Pgs 12-13

Section and Topic	Item #	Checklist item	Location where item is reported
		other evidence.	(discussion)
	23b	Discuss any limitations of the evidence included in the review.	Pg 13 (limitations)
	23c	Discuss any limitations of the review processes used.	Pg 13 (limitations)
	23d	Discuss implications of the results for practice, policy, and future research.	Pgs 12-13 (discussion & conclusion)
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	N/A
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	N/A
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	N/A
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Pg 14
Competing interests	26	Declare any competing interests of review authors.	Pg 14
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	N/A

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

For more information, visit: http://www.prisma-statement.org/

Appendix 2: Search Strategy

Ovid

Database(s): APA PsycInfo 1806 to April Week 1 2021, EBM Reviews - Cochrane Central Register of Controlled Trials March 2021, EBM Reviews - Cochrane Database of Systematic Reviews 2005 to April 8, 2021, EBM Reviews - Health Technology Assessment 4th Quarter 2016, Embase 1974 to 2021 April 09 , Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations and Daily 1946 to April 09, 2021

Search Strategy:

#	Searches	Results
1	exp Refugees/	32123
2	((asylum adj3 seek*) or "displaced people" or "displaced person*" or refugee* or "stateless people" or "stateless person*").ti,ab,hw,kw.	45095
3	1 or 2	45095
4	exp Electronic Health Records/	46211
5	exp Medical Records Systems, Computerized/	44939
6	((("Computer-based" or computerized or "Computer-stored" or Electronic) adj2 ("Medical Record" or "Medical Records" or "Patient Record" or "Patient Records" or "Health Record" or "Health Records" or "Order Entry" or "Order Entries")) or ehealth or "E-Health" or EHR or "electronic health" or EMR or "health information exchange*" or "medical information exchange*" or mhealth or "M-Health" or "Mobile health" or "Physician Order Entries" or "Physician Order Entry").ti,ab,hw,kw.	238166
7	4 or 5 or 6	239595
8	3 and 7	271
9	remove duplicates from 8	187

Scopus

1	TITLE-ABS-KEY((asylum W/3 seek*) OR "displaced people" OR "displaced person*" OR refugee* OR "stateless people" OR "stateless person*")
2	TITLE-ABS-KEY((("Computer-based" or computerized or "Computer-stored" or Electronic) W/2 ("Medical Record" or "Medical Records" or "Patient Record" or "Patient Records" or "Health Record" or "Health Records" or "Order Entry" or "Order Entries")) OR ehealth OR "E-Health" OR EHR OR "electronic health" OR EMR OR "health information exchange*" OR "medical information exchange*" OR mhealth OR "M-Health" OR "Mobile health" OR "Physician Order Entries" OR "Physician Order Entry")
3	1 and 2
4	INDEX(embase) OR INDEX(medline) OR PMID(0* OR 1* OR 2* OR 3* OR 4* OR 5* OR 6* OR 7* OR 8* OR 9*)
5	3 and not 4

CINAHL

1	(MM "Refugee Camps") OR (MM "Refugees")
2	((asylum N3 seek*) or "displaced people" or "displaced person*" or refugee* or "stateless people" or "stateless person*")
3	1 or 2
4	(MH "Electronic Health Records+")
5	((("Computer-based" or computerized or "Computer-stored" or Electronic) N2 ("Medical Record" or "Medical Records" or "Patient Record" or "Patient Records" or "Health Record" or "Health Records" or "Order Entry" or "Order Entries")) or ehealth or "E-Health" or EHR or "electronic health" or EMR or "health information exchange*" or "medical information exchange*" or mhealth or "M-Health" or "Mobile health" or "Physician Order Entries" or "Physician Order Entry")
6	4 or 5
7	3 and 6

Appendix 3 – Critical Appraisal

Modified Newcastle-Ottawa tool for Cohort and Case Control Studies

1. Risk of bias due to loss to follow-up? (drop outs, withdrawals and patients who lack follow-up data)
2. Was there any reporting bias due to selective outcome reporting?
3. Important imbalances at baseline (in terms of the two comparative groups of patients)?
4. Source of study funding
5. The study subjects were recruited in a consecutive manner and are representative of the whole experience of the study center?
6. Study ascertained what medical conditions patients had from a reliable and credible source (such as medical records, or the study followed patients to see what medical conditions they had) versus from a less reliable source (ICD-9 codes for example).
7. Comparability of cohorts on the basis of the design or analysis, if applicable (Were there methods described to control for confounding? (e.g. appropriate study design and/or statistical methods described which would attempt to control for confounding—such as matching or logistic regression))
8. Assessment of outcome (were the methods used to assess for the presence of the outcomes credible and reliable?)
9. Was study follow up long enough for outcomes to occur?
10. Adequacy of follow up of cohorts (was there significant loss to follow-up?)
11. Authors' conflict of interest and funding sources?
12. Is the qualitative methodology appropriate?
13. Was the recruitment strategy appropriate to the aims of this study?
14. Was the data collected in a way that addressed the research issue?
15. Has the relationship between the researchers and participants been adequately considered?
16. Have ethical issues been taken into consideration?
17. Was the data analysis sufficiently rigorous?

Study ID (author, year)	**Follow up**	**Outcome reporting**	**Baseline imbalances**	**Source of study funding**	**Study subjects**	**Exposure ascertainment**	**Comparability**	**Outcome assessment**	**Follow up time**	**Adequate follow up**	**Conflict of interest**	**Qualitative methods**	**Recruitment strategy**	**Data collection**	**Researcher relationship**	**Ethical issues**	**Data analysis**
Doocy, et al 2017	Yes, but response rate was enough to detect change	Yes	No	Research for Health in Humanitarian Crisis (R2HC).	Unclear	Yes	N/A	Yes	Yes	No	No	Yes	Yes	Yes	Unclear	Yes	Yes
Berkowitz et al, 2016	Yes. Refugees had shorter follow up.	No	Yes. Difference in baseline BMI, baseline diabetes, difference in education, difference in insurance	Unknown	Yes	Yes	Yes	Yes	Yes	Yes	No conflict	N/A	Yes	Yes		Yes	Yes
Khader, et al 2013	Yes. large loss to follow up (males significantly more than females)	No	Yes. differences in male and female participants (almost across the board)	Unknown	Yes	Yes	No	Yes	Yes	Yes	No conflict	N/A	Yes	Yes	Yes	Yes	Yes
Khader, Ballout et al 2014	10% lost to follow up after 1 year	No	Yes, more males, more under 60yo, more patients with	Unknown	Yes	Yes	No	Yes	Yes	Yes	No conflict	N/A	Yes	Yes	Yes	Yes	Yes

			diabetes control undetermined, more patients with poor diabetes control who failed to return to clinic														
Khader, Ballout et al 2014	Yes. About 30% over 36 months lost to follow up	No	N/A	Unknown	Yes	Yes	N/A	Yes	Yes	Yes	Unknown	N/A	Yes	Yes	Yes	Yes	No. They did not have comparison group
Khader et al., 2012	No	No	N/A	Unknown	Yes	Yes	N/A	Yes	Yes	No	Unknown	N/A	Yes	Yes	Yes	Yes	No. They did not have comparison group
Khader et al., 2012	No	No	N/A	Unknown	Yes	Yes	N/A	Yes	Yes	No	Unknown	N/A	Yes	Yes	Yes	Yes	No. They did not have comparison group
Doocy et al, 2017	Yes, 77.75% of participants finished study	No	N/A (longitudinal cohort)	Research for Health in Humanitarian Crisis (R2HC).	No, excluded those without HT or DM diagnosis or under 40	Yes	N/A	No (self-reported adherence)	Yes	77.75% completed study	No conflict	Yes	Yes	Yes	Yes	Yes	No. They did not have comparison group
Doocy et al., 2018	Yes, 78% of participants finished study	No	N/A (longitudinal cohort)	Research for Health in Humanitarian Crisis (R2HC)	No, excluded those without HT or DM diagnosis or under 40	Yes	N/A	No (self-reported adherence)	Yes	78% completed study	No conflict	N/A	Yes	Yes	Yes	Yes	No. They did not have a comparison group
Shapiro, 2016	Yes, 33 of 129 (25.6%) excluded due to no follow-up	No	No	Unknown	Yes	Yes	N/A	Yes	Yes	Yes	No conflict	N/A	Yes	Yes	Yes	Yes	No. They did not have comparison group
Skoberg, 2019	TBD	TBD	TBD	EU Asylum, Migration and Integration Fund, grant number SMDno-2016-1541.	Yes	No	N/A	Yes	TBD	TBD	No conflict	Yes	Yes	TBD	Yes	Yes	No. They did not have comparison group
Storck 2018	TBD	TBD	TBD	Unknown	Unclear	No	N/A	N/A	TBD	TBD	No conflict	N/A	N/A	TBD	Yes	Yes	No. They did not have comparison group
Njeru et al., 2017	Yes, unknown	No	Yes, more females,	Mayo Clinic	Yes	Yes	No controls	Yes	Yes	Unknown	No conflict	Yes	Yes	Yes	Yes	Yes	Yes

	number excluded for lack of visits		younger, non-white	Kern Center and Primary Care Division													
Olson et al., 2017	No	No	No	Unknown	Yes	Yes	Yes, controlled for age, sex, region, duration of US residence	Yes	Yes	No	Unknown	N/A	Yes	Yes	Yes	Yes	Yes
Pohl et al., 2017	No	No	N/A	Unknown	Yes	Yes	N/A	Yes	N/A	N/A	No conflict	N/A	Yes	Yes	Yes	Yes	No. They did not have comparison group
Wagner, 2014	No	No	N/A		Yes	Yes	Yes (controlled for age)	Yes	Yes	Yes	No conflict	N/A	Yes	Yes	Yes	Yes	No. They did not have comparison group
Waldof, 2014	No	No	N/A	Unknown	No, excluded all Spanish speaking patients and those without EMR	Yes	Yes	Yes	Yes	No	No conflict	Yes	Yes	Yes	Yes	Yes	No, they did not have a comparison group
Walters, 2016	No	No	N/A	Unknown	No, some patients may have known about their HBV status	Yes	N/A	No, used HBsAg which only indicates chronic infection	Yes	No	No conflict	N/A	Yes	Yes	Yes	Yes	Yes
Goodman, 2018	No	No	N/A	Unknown	No	No	Yes	N/A	N/A	No	No conflict	N/A	Yes	Yes	Yes	Yes	Yes
Goosen, 2015	No	No	asylum seekers are more often younger males	Unknown	Yes	Yes	Yes	N/A	Yes	No	No conflict	N/A	Yes	Yes	Yes	Yes	Yes
Hanna, 2015	No	No	N/A	Unknown	Yes	Yes	No, didn't control for age/gender	N/A	Yes	No	No conflict	N/A	Yes	Yes	Yes	Yes	Yes (no comparison but cross-sectional)
Higgins, 2019	No	No	N/A	Unknown	Yes	Yes	N/A	Yes	No	No	No conflict	N/A	Yes	Yes	Yes	Yes	Yes
Lagos-Gallego, 2017	No	No	No	Universidad Tecnológica de Pereira	Yes	No, used ICD-10 codes	Yes	N/A	Yes	No	No conflict	N/A	Yes	Yes	Yes	Yes	Yes
Darwish, 2020	No	No	N/A	Unknown	Yes	No, used diagnostic codes	N/A	N/A	N/A	No	No conflict	N/A	Yes	Yes	Yes	Yes	No. They did not have a comparison group
Oltrogge, 2020	Yes	No	N/A	N/A	Yes	No, used diagnostic codes	Yes	N/A	Yes	Yes	No conflict	Yes, based on free-text EMR entries	Yes	Yes	Yes	Yes	Yes
Dalheez, 2020	N/A	No	N/A	Unknown	Yes (random	N/A	Yes	N/A	N/A	N/A	Unknown	Yes	Yes	Yes	Yes	No	No. They did not

					sampling with 82% response rate)											have a comparison group
Sengoren Dikis, 2020	N/A	No	Yes, Turkish citizens versus Syrian refugees, smaller sample size of refugees	Unknown	Yes	No, used diagnostic codes	Yes	N/A	N/A	N/A	No conflict	N/A	Yes	Yes	Yes	Yes	Yes
Hoffman, 2021	Yes	No	N/A	University of Minnesota, NIH Child Health & Human Development	Yes	Yes	N/A	N/A	Yes	Yes	No conflict	Yes	Yes	Yes	Yes	Yes	

Cochrane Tool for risk of bias assessment of randomized clinical trials

Study	Is the case definition adequate?	Representativeness of the cases	Selection of Controls	Definition of Controls	*Total*	Comparability of cases and controls on the basis of the design or analysis	Ascertainment of exposure	Same method of ascertainment for cases and controls	Non-Response rate	*Total*	Total
Saleh, 2018	Yes	Yes	Yes	Yes	4	Disease and Populatoin	Records and Surveys	Yes	Low response rate (62.9%) to phone screenings	3	7

Joanna Briggs Institute (JBI) Critical Appraisal for Qualitative Studies

Study	Questions									
	1. Is there congruity between the stated philosophical perspective and the research methodology?	2. Is there congruity between the research methodology and the research question or objectives?	3. Is there congruity between the research methodology and the methods used to collect data?	4. Is there congruity between the research methodology and the representation and analysis of data?	5. Is there congruity between the research methodology and the interpretation of results?	6. Is there a statement locating the researcher culturally or theoretically?	7. Is the influence of the researcher on the research, and vice- versa, addressed?	8. Are participants, and their voices, adequately represented?	*9. Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?*	*Were strategies to address incomplete follow up utilized?*
Rossi et al., 2009	Yes	Yes	Yes	No	Yes	No	No	No	Yes	No
Santoro et al., 2016	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No
Maher et al., (2012)	Yes	Yes	Yes	No	Yes	No	No	No	Yes	No