

## Appendices

### Appendix 1. Search parameters

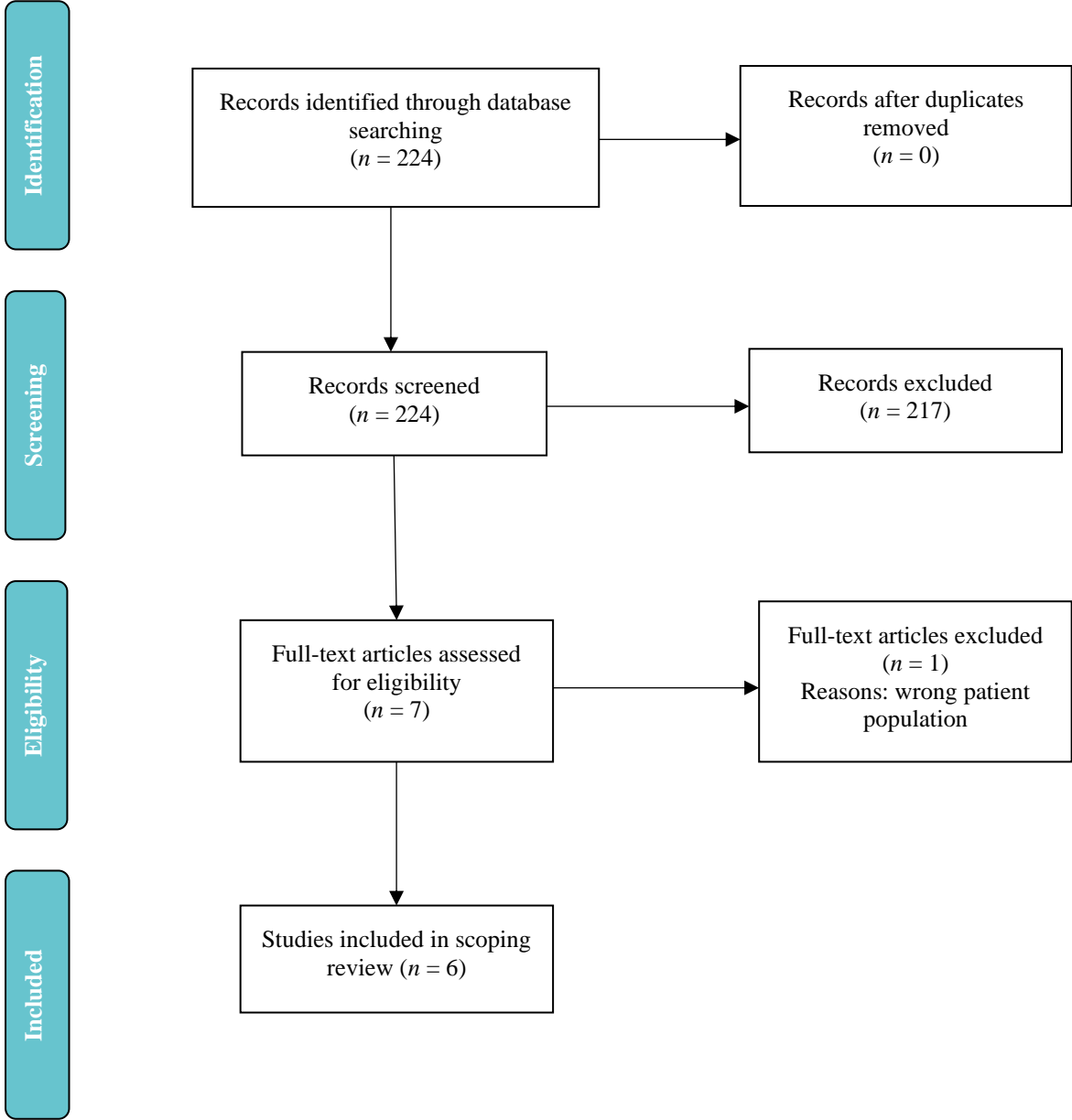
Intervention	Most recent systematic review	Existing search parameters	Eligibility criteria mentioned in systematic review	Expanded search parameters	Eligibility criteria for this scoping review
PR	'Pulmonary rehabilitation outcomes in individuals with chronic obstructive pulmonary disease: A scoping review' by Souto-Miranda et al (2021)	("COPD" OR "chronic obstructive pulmonary disease" OR "COAD" OR "chronic airflow obstruction" OR "chronic obstructive airway disease" OR "chronic obstructive lung disease" OR "emphysema" OR "chronic bronchitis") AND ("pulmonary rehabilitation" OR "respiratory rehabilitation" OR "respiratory physiotherapy" OR "respiratory physical therapy" OR "exercise" OR "exercise training") AND ("ambulatory" OR "inpatients" OR "outpatients" OR "community" OR "primary care" OR "hospital" OR "home" OR "domiciliary").	Included: - Individuals with stable COPD; with PR as an intervention, with at least exercise training and education; written in English, Portuguese, Spanish or French; and published from January 1, 2000 onward.  Excluded: - Studies of participants who reported acute exacerbations of COPD (AECOPD) in the month before initiating PR; investigated clinimetric properties of measures with no pre-post data comparisons; and study protocols, qualitative studies, news, theses/dissertations, articles in conference proceedings, abstracts, letters to the editor, commentaries, reviews, systematic reviews, books and chapters or unpublished work.	("ILD" OR "interstitial lung disease" OR "COPD" OR "chronic obstructive pulmonary disease" OR "COAD" OR "chronic airflow obstruction" OR "chronic obstructive airway disease" OR "chronic obstructive lung disease" OR "emphysema" OR "chronic bronchitis") AND ("pulmonary rehabilitation" OR "respiratory rehabilitation" OR "respiratory physiotherapy" OR "respiratory physical therapy" OR "exercise" OR "exercise training") AND ("ambulatory" OR "inpatients" OR "outpatients" OR "community" OR "primary care" OR "hospital" OR "home" OR "domiciliary") Filters: English, from 2020/12/1 - 2022/10/1	
SLH	'Singing for adults with chronic obstructive pulmonary disease (Review)' by McNamara et al (2017)	<b>MEDLINE search strategy used to identify trials for the CAGR COPD search</b> 1. Lung Diseases, Obstructive/ 2. exp Pulmonary Disease, Chronic Obstructive/ 3. emphysema\$.mp. 4. (chronic\$ adj3 bronchiti\$).mp. 5. (obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp. 6. COPD.mp. 7. COAD.mp. 8. COBD.mp. 9. AECB.mp. 10. or/1-9	Included: - Randomised controlled trials reported as full-text, published as abstract only, and unpublished data. - Adults with stable COPD, diagnosed according to the investigators' definition, of any age/disease severity. - Studies examining structured, supervised singing training of ≥4 weeks' duration with a minimum of 4 sessions. Included studies compared:	'singing' AND ('respiratory disease' OR 'COPD' OR 'interstitial lung disease'). Filters: English, from 2017/8/1- 2022/10/1.	Published randomized controlled trials, controlled trials.

		<p><b>Filter to identify RCTs</b></p> <p>1. exp "clinical trial [publication type]"/ 2. (randomized or randomised).ab,ti. 3. placebo.ab,ti. 4. dt.fs. 5. randomly.ab,ti. 6. trial.ab,ti. 7. groups.ab,ti. 8. or/1-7 9. Animals/ 10. Humans/ 11.9 not (9 and 10) 12.8 not 11</p> <p><b>Search strategy to identify relevant trials from the CAGR</b></p> <p>#1 MeSH DESCRIPTOR Pulmonary Disease, Chronic Obstructive Explode All #2 MeSH DESCRIPTOR Bronchitis, Chronic</p> <p>#3 (obstruct*) near3 (pulmonary or lung* or airway* or airflow* or bronch* or respirat*) #4 COPD:MISC1 #5 (COPD OR COAD OR COBD OR AECOPD):TL,AB,KW #6 #1 OR #2 OR #3 OR #4 OR #5</p> <p>#7 (sing or singing or singer* or song*):ti,ab,kw #8 (voice* or vocal*) NEAR (exercis* or train*) #9 diaphragm* NEAR2 breath* #10 MeSH DESCRIPTOR Music Therapy</p> <p>#11 choir*:ti,ab,kw #12 #7 or #8 or #9 or #10 or #11 #13 #6 AND #12</p>	<p>1. singing versus no intervention (usual care) or another control intervention;</p> <p>2. singing plus PR versus PR alone.</p>		<p>mixed-methods, and cohort studies that enrolled adults with a diagnosis of COPD or ILD were included. Duplicate studies, case reports, commentaries, conference abstracts, literature reviews or documents describing the outcomes of research studies or other primary data were excluded.</p>
MPCI	<p><b>'Effectiveness and implementation of palliative care interventions for patients with chronic obstructive pulmonary disease: A systematic review' by Broese et al (2020)</b></p>	<p>("advanced COPD"[tiab] OR "end-stage COPD"[tiab] OR advanced chronic obstructive*[tiab] OR end-stage chronic obstructive*[tiab] OR ("interstitial lung disease"[tw] OR "ILD"[tw] OR "Pulmonary Disease, Chronic Obstructive"[Mesh] OR "chronic obstructive pulmonary disease"[tw] OR "COPD"[tw] OR</p>	<p>Included:</p> <ul style="list-style-type: none"> <li>- Articles reporting on primary research data of MPCI targeting patients with COP.</li> <li>- Intervention required to be referred to as a palliative care or end-of-life care intervention, program or approach. A MPCI was defined as an intervention comprising multiple components which</li> </ul>	<p>("advanced COPD"[tiab] OR "end-stage COPD"[tiab] OR advanced chronic obstructive*[tiab] OR end-stage chronic obstructive*[tiab] OR ("interstitial lung disease"[tw] OR "ILD"[tw] OR "Pulmonary Disease, Chronic Obstructive"[Mesh] OR "chronic obstructive pulmonary disease"[tw] OR</p>	

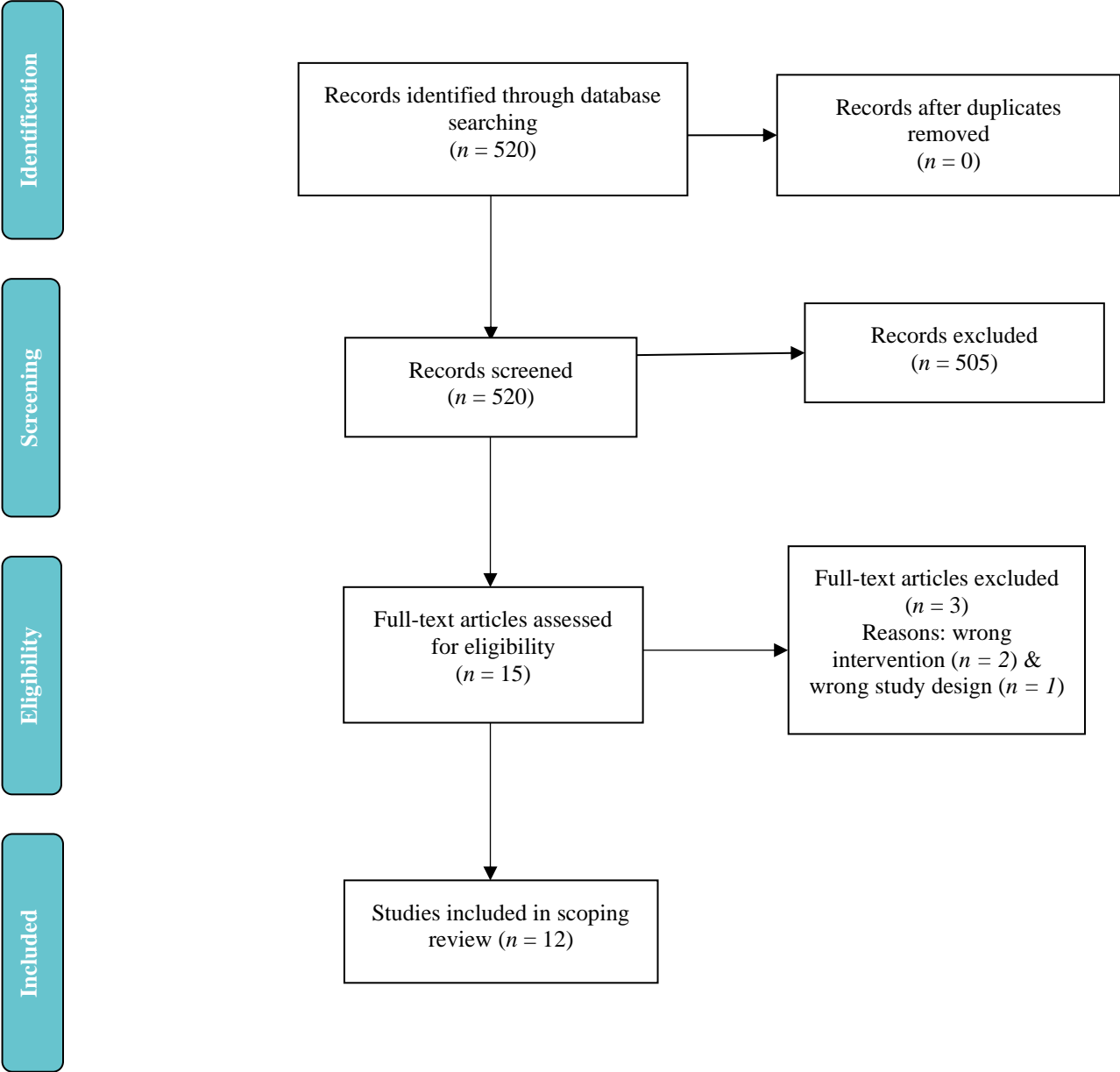
	<p>COPD*[tw] OR  "COAD"[tw] OR  "Chronic Obstructive Airway Disease"[tw] OR  "Chronic Obstructive Lung Disease"[tw] OR  "Chronic Airflow Obstructions"[tw] OR  "Chronic Airflow Obstruction"[tw] OR  "chronic bronchitis"[tw] OR  "pulmonary emphysema"[tw] OR  "Pulmonary Emphysemas"[tw] OR  "Focal Emphysema"[tw] OR  "Panacinar Emphysema"[tw] OR  "Panlobular Emphysema"[tw] OR  "Centriacinar Emphysema"[tw] OR  "Centrilobular Emphysema"[tw])  AND ("Palliative Care"[Mesh] OR  "palliative care"[tw] OR  "palliative care interventions"[tw] OR  "palliative care intervention"[tw] OR  "Palliative Therapy"[tw] OR  "Palliative Treatment"[tw] OR  "Palliative Treatments"[tw] OR  "Palliative Surgery"[tw] OR  "Palliative therapy"[tw] OR  "palliative phase"[tw] OR  "palliative phases"[tw] OR  "palliation"[tw] OR  "palliative"[tw] OR  palliat*[tw] OR  "Palliative Medicine"[mesh] OR  "Terminal Care"[Mesh:noexp] OR  "Hospice Care"[Mesh] OR  "Resuscitation Orders"[mesh] OR  "Terminal Care"[tw] OR  "Hospice Care"[tw] OR  "Hospice Programs"[tw] OR  "Hospice Program"[tw] OR  "Bereavement Care"[tw] OR  "End-of-Life Care"[tw] OR  "Life Care End"[tw] OR  "supportive care"[tw] OR  "terminally ill"[tiab] OR  "Terminally Ill"[Mesh] OR  "advanced</p>	<p>interact to produce change, following the complex intervention definition of the Medical Research Council.  - If the study population was mixed, articles were included if at least 30% of the study population suffered from COPD.  - Uncontrolled before-and-after studies, qualitative and mixed-method studies were included.  Excluded:  - Interventions focusing only on a single component (such as advance care planning or opioids for breathlessness).  - Case reports and non-primary research data, such as reviews, editorials, conference abstracts and books.</p>	<p>"COPD"[tw] OR  COPD*[tw] OR  "COAD"[tw] OR  "Chronic Obstructive Airway Disease"[tw] OR  "Chronic Obstructive Lung Disease"[tw] OR  "Chronic Airflow Obstructions"[tw] OR  "Chronic Airflow Obstruction"[tw] OR  "chronic bronchitis"[tw] OR  "pulmonary emphysema"[tw] OR  "Pulmonary Emphysemas"[tw] OR  "Focal Emphysema"[tw] OR  "Panacinar Emphysema"[tw] OR  "Panlobular Emphysema"[tw] OR  "Centriacinar Emphysema"[tw] OR  "Centrilobular Emphysema"[tw])  AND ("Palliative Care"[Mesh] OR  "palliative care"[tw] OR  "palliative care interventions"[tw] OR  "palliative care intervention"[tw] OR  "Palliative Therapy"[tw] OR  "Palliative Treatment"[tw] OR  "Palliative Treatments"[tw] OR  "Palliative Surgery"[tw] OR  "Palliative therapy"[tw] OR  "palliative phase"[tw] OR  "palliative phases"[tw] OR  "palliation"[tw] OR  "palliative"[tw] OR  palliat*[tw] OR  "Palliative Medicine"[mesh] OR  "Terminal Care"[Mesh:noexp] OR  "Hospice Care"[Mesh] OR  "Resuscitation Orders"[mesh] OR  "Terminal Care"[tw] OR  "Hospice Care"[tw] OR  "Hospice Programs"[tw] OR  "Hospice Program"[tw] OR  "Bereavement Care"[tw] OR  "End-of-Life Care"[tw] OR  "Life Care End"[tw] OR  "supportive care"[tw] OR  "terminally ill"[tiab] OR  "Terminally Ill"[Mesh] OR</p>	
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		illness"[tiab] OR "advanced disease"[tiab] OR "Death"[mesh:noexp] OR "dying loved one"[tiab] OR "dying patient"[tiab] OR "dying patients"[tiab] OR "dying people"[tiab] OR "dying person"[tiab] OR "dying"[tiab] OR "last year of life"[tiab] OR "end of life"[tiab] OR "end-of-life"[tiab] OR "terminal illness"[tiab] OR "terminal illnesses"[tiab] OR "death and dying"[tiab] OR "limited life expectancies"[tiab] OR "limited life expectancy"[tiab] OR "limited life span"[tiab] OR "limited lifespan"[tiab] OR "limited life spans"[tiab] OR "critical illness"[tiab] OR "Critical Illness"[Mesh] OR "frail elderly"[tiab] OR "Frail Elderly"[Mesh])) Filters: English, from 2020/6/9 - 2022/10/1		"advanced illness"[tiab] OR "advanced disease"[tiab] OR "Death"[mesh:noexp] OR "dying loved one"[tiab] OR "dying patient"[tiab] OR "dying patients"[tiab] OR "dying people"[tiab] OR "dying person"[tiab] OR "dying"[tiab] OR "last year of life"[tiab] OR "end of life"[tiab] OR "end- of-life"[tiab] OR "terminal illness"[tiab] OR "terminal illnesses"[tiab] OR "death and dying"[tiab] OR "limited life expectancies"[tiab] OR "limited life expectancy"[tiab] OR "limited life span"[tiab] OR "limited lifespan"[tiab] OR "limited life spans"[tiab] OR "critical illness"[tiab] OR "Critical Illness"[Mesh] OR "frail elderly"[tiab] OR "Frail Elderly"[Mesh])) Filters: English, from 2020/6/9 - 2022/10/1	
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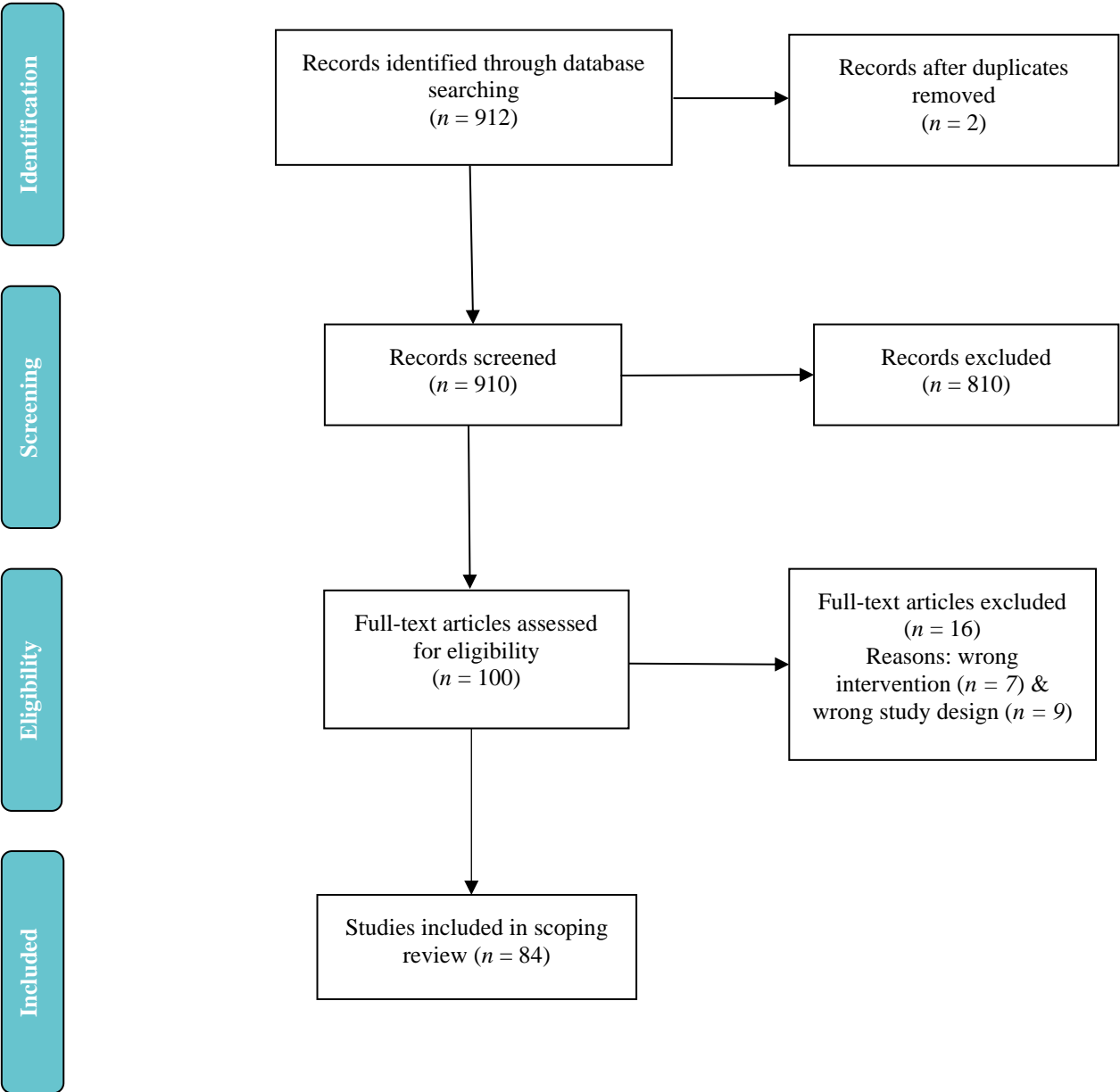
Appendix 2. PRISMA flowchart for additional SLH studies



Appendix 3. PRISMA flowchart for additional MPCCI studies



Appendix 4. PRISMA flowchart for additional PR studies



**Appendix 5. Social determinants of health identified in PR studies according to the WHO Commission on SDH framework**

Studies from high-income countries							
Study reference	Country	Income	Education	Occupation	Social class	Gender	Race/ethnicity
Bishop et al. (2021)	Australia	-	-	-	-	✓	-
Boxall et al. (2005)	Australia	-	-	-	-	✓	-
Burge et al. (2021)	Australia	-	-	-	-	✓	-
Burge et al. (2021)	Australia	✓	✓	✓	-	✓	-
Cameron-Tucker et al. (2016)	Australia	-	✓	-	-	✓	-
Cameron-Tucker et al. (2014)	Australia	-	✓	-	-	✓	-
Cecins et al. (2008)	Australia	-	-	-	-	✓	-
Cox et al. (2022)	Australia	-	-	-	-	✓	-
Elliott et al. (2004)	Australia	-	-	-	-	✓	-
Engel et al. (2016)	Australia	-	-	-	-	✓	✓
Holland et al. (2017)	Australia	-	-	-	-	✓	-
Hug et al. (2022)	Australia	-	-	-	-	✓	-
Johnston et al. (2017)	Australia	-	-	-	-	✓	-
Lahham et al. (2020)	Australia	-	-	-	-	✓	-
Li et al. (2022)	Australia	-	✓	-	-	✓	-
Liacos et al. (2019)	Australia	-	-	-	-	✓	-
Liang et al. (2019)	Australia	✓	✓	✓	-	✓	-
Luk et al. (2017)	Australia	-	-	-	-	✓	-
Luk et al. (2017)	Australia	-	✓	-	-	✓	-
Luk et al. (2015)	Australia	-	-	-	-	✓	-
Malaguti et al. (2021)	Australia	-	✓	✓	-	✓	-
Rasekaba et al. (2009)	Australia	-	-	-	-	✓	-
Sandoz et al. (2017)	Australia	-	-	-	-	✓	-
Tang et al. (2022)	Australia	✓	✓	-	-	-	✓
Demeyer et al. (2016)	Belgium	-	-	-	-	✓	-
Beauchamp et al. (2013)	Canada	-	-	-	-	✓	-
Beauchamp et al. (2010)	Canada	-	-	-	-	✓	-
Doucet et al. (2021)	Canada	-	-	-	-	✓	-
Golmohammadi et al. (2004)	Canada	-	-	-	-	✓	-
Harrison et al. (2012)	Canada	-	-	-	-	✓	-
Harrison et al. (2015)	Canada	-	-	-	-	✓	-
Maltais et al. (2008)	Canada	-	-	-	-	✓	-
Marquis et al. (2015)	Canada	-	✓	-	-	✓	-
Moore et al. (2017)	Canada	-	-	-	-	✓	-
Selzler et al. (2021)	Canada	-	-	-	-	✓	-
Stickland et al. (2011)	Canada	-	-	-	-	✓	-
Voduc et al. (2010)	Canada	-	-	-	-	-	-



Yurchak et al. (2021)	Canada	-	-	-	-	✓	-
Bjornshave et al. (2013)	Denmark	-	✓	-	-	✓	-
Cerdán-de-Las-Heras et al. (2021)	Denmark	-	-	-	-	✓	-
Cerdán-de-Las-Heras et al. (2021)	Denmark	-	-	-	-	✓	-
Godtfredsen et al. (2019)	Denmark	-	-	-	-	✓	-
Jacobsen et al. (2014)	Denmark	✓	✓	✓	-	✓	✓
Kaasgaard et al. (2022)	Denmark	-	-	-	-	✓	-
Ringbaek et al. (2000)	Denmark	-	-	-	-	✓	-
Ringbaek et al. (2008)	Denmark	-	-	-	-	✓	-
Ringbaek et al. (2013)	Denmark	-	-	-	-	✓	-
Katajisto and Laitinen. (2017)	Finland	-	-	-	-	✓	-
Beaumont et al. (2011)	France	-	-	-	-	✓	-
Beaumont et al. (2018)	France	-	-	-	-	✓	-
Bellocq et al. (2019)	France	-	-	-	-	✓	-
Berriet et al. (2022)	France	-	-	-	-	✓	-
Blervaque et al. (2021)	France	-	-	-	-	✓	-
Bonnevie et al. (2018)	France	-	-	-	-	✓	-
Caille et al. (2021)	France	-	✓	-	-	✓	-
Coquart et al. (2016)	France	-	-	-	-	✓	-
Coquart et al. (2017)	France	-	-	-	-	✓	-
deBisschop et al. (2021)	France	-	-	-	-	✓	-
Fabre et al. (2007)	France	-	-	-	-	-	-
Gephine et al. (2022)	France	-	-	-	-	✓	-
Gouzi et al. (2019)	France	-	-	-	-	✓	-
Grosbois et al. (2022)	France	-	-	-	-	✓	-
Grosbois et al. (2019)	France	-	-	-	✓	✓	-
Grosbois et al. (2015)	France	-	-	-	-	✓	-
Grosbois et al.(2016)	France	-	-	-	-	✓	-
Kemoun et al. (2000)	France	-	-	-	-	✓	-
Leleu et al. (2006)	France	-	-	-	-	✓	-
Moullec and Ninot. (2010)	France	-	-	-	-	✓	-
Moullec et al. (2008)	France	-	-	-	-	✓	-
Ninot et al. (2011)	France	-	-	✓	-	✓	-
Ninot et al. (2007)	France	-	-	✓	-	-	-
Ninot et al. (2006)	France	-	-	-	-	✓	-
Péran et al. (2018)	France	-	-	-	-	✓	-
Pichon et al. (2016)	France	-	-	-	-	✓	-
Shahin et al. (2008)	France	-	-	-	-	✓	-
Smondack et al. (2022)	France	-	-	-	-	✓	-
Vaidya et al. (2018)	France	-	-	-	-	✓	-
Baumann et al. (2012)	Germany	-	-	-	-	✓	-

Gloeckl et al. (2021)	Germany	-	-	-	-	✓	-
Gloeckl et al. (2021)	Germany	-	-	-	-	-	-
Gloeckl et al. (2012)	Germany	-	-	-	-	✓	-
Gloeckl et al. (2017)	Germany	-	-	-	-	✓	-
Greulich et al. (2015)	Germany	-	-	-	-	✓	-
Köhnlein et al. (2009)	Germany	-	-	-	-	✓	-
Ochmann et al. (2012)	Germany	-	-	-	-	✓	-
Reijnders et al. (2019)	Germany	-	-	-	-	✓	-
Reijnders et al. (2018)	Germany	-	-	-	-	✓	-
Schuler et al. (2018)	Germany	-	-	-	-	✓	-
Schuler et al. (2018)	Germany	-	-	-	-	✓	-
Schultz et al. (2018)	Germany	-	-	-	-	✓	-
Spielmanns et al. (2016)	Germany	-	-	-	-	✓	-
Von Leupoldt et al. (2008)	Germany	-	-	-	-	✓	-
Von Leupoldt et al. (2011)	Germany	-	-	-	-	✓	-
Vasilopoulou et al. (2017)	Greece	-	-	-	-	✓	-
Vogiatzis et al. (2005)	Greece	-	-	-	-	-	-
Casey et al. (2013)	Ireland	-	-	✓	-	✓	-
Cullen et al. (2017)	Ireland	-	-	-	-	✓	-
Egan et al. (2012)	Ireland	-	-	-	-	✓	-
Ambrosino et al. (2015)	Italy	-	-	-	-	✓	-
Bernocchi et al. (2018)	Italy	-	-	-	-	✓	-
Bianchi et al. (2002)	Italy	-	-	-	-	✓	-
Brunetti et al. (2021)	Italy	-	-	-	-	✓	-
Carone et al. (2007)	Italy	-	-	-	-	✓	-
Clini et al.(2001)	Italy	-	-	-	-	✓	-
Clini et al. (2002)	Italy	-	-	-	-	✓	-
Di Meo et al. (2008)	Italy	-	-	-	-	✓	-
Foglio et al. (2007)	Italy	-	-	-	-	✓	-
Gigliotti et al. (2003)	Italy	-	-	-	-	✓	-
Incorvaia et al. (2014)	Italy	-	-	-	-	✓	-
Lorenzi et al. (2004)	Italy	-	-	-	-	✓	-
Marcello. (2004)	Italy	-	-	-	-	✓	-
Paneroni et al. (2015)	Italy	-	-	-	-	✓	-
Paolucci et al. (2022)	Italy	-	-	-	-	✓	-
Riario-Sforza et al. (2005)	Italy	-	-	-	-	✓	-
Romagnoliet al. (2006)	Italy	-	-	-	-	✓	-
Vitacca et al. (2022)	Italy	-	-	-	-	✓	-
Vitacca et al. (2021)	Italy	-	-	-	-	✓	-
Vitacca et al. (2021)	Italy	-	✓	-	-	✓	-
Zanini et al. (2015)	Italy	-	-	-	-	✓	-
Zanini et al. (2013)	Italy	-	-	-	-	✓	-

Zanini et al. (2015)	Italy	-	-	-	-	✓	-
Arizono et al. (2017)	Japan	-	-	-	-	✓	-
Fukuoka et al. (2016)	Japan	-	-	-	-	✓	-
Hamada et al. (2022)	Japan	-	-	-	-	✓	-
Horie et al. (2021)	Japan	✓	-	-	-	✓	-
Kagaya et al. (2009)	Japan	-	-	-	-	-	-
Kanao et al. (2017)	Japan	-	-	-	-	✓	-
Katsura et al. (2004)	Japan	-	-	-	-	✓	-
Katsura et al. (2003)	Japan	-	-	-	-	✓	-
Kawagoshi et al. (2015)	Japan	-	-	-	-	✓	-
Kozu et al. (2011)	Japan	-	-	-	-	✓	-
Maekura et al. (2015)	Japan	-	-	-	-	✓	-
Matsuo et al. (2021)	Japan	-	-	-	-	✓	-
Miki et al. (2013)	Japan	-	-	-	-	✓	-
Miki et al. (2012)	Japan	-	-	-	-	✓	-
Miyahara et al. (2000)	Japan	-	-	-	-	✓	-
Miyamoto et al. (2014)	Japan	-	-	-	-	✓	-
Miyazaki et al. (2022)	Japan	-	-	-	-	✓	-
Mori et al. (2021)	Japan	-	-	-	-	✓	-
Okamoto et al. (2021)	Japan	-	-	-	-	-	-
Shimoda et al. (2021)	Japan	-	-	-	-	✓	-
Takigawa et al. (2007)	Japan	-	-	-	-	✓	-
Tomioka et al. (2016)	Japan	-	-	-	-	✓	-
Tsujimura et al. (2021)	Japan	-	-	✓	-	✓	-
Tsujimura et al. (2019)	Japan	-	-	✓	-	✓	-
Yoshimi et al. (2012)	Japan	-	-	-	-	✓	-
Lee et al. (2013)	Korea	-	-	-	-	✓	-
Eaton et al. (2006)	New Zealand	-	-	-	-	✓	-
Bentsen et al. (2013)	Norway	-	-	-	-	✓	-
Bratas et al. (2010)	Norway	-	✓	-	-	✓	-
Burkow et al. (2015)	Norway	-	-	✓	-	✓	-
Haugen and Stavem. (2007)	Norway	-	-	-	-	✓	-
Skumlien et al. (2007)	Norway	-	-	-	-	✓	-
Zanaboni et al. (2013)	Norway	-	-	✓	-	✓	-
Rutkowski et al. (2021)	Poland	-	✓	✓	-	✓	-
Rutkowski et al. (2021)	Poland	-	-	-	-	✓	-
Wrzeciono et al. (2021)	Poland	-	✓	✓	-	✓	-
Marques et al. (2015)	Portugal	-	-	-	-	✓	-
Pimenta et al. (2021)	Portugal	-	-	-	-	✓	-
Rebelo et al. (2020)	Portugal	-	-	-	-	✓	-
Rebelo et al. (2020)	Portugal	-	-	-	-	✓	-
Santos et al. (2022)	Portugal	-	-	-	-	✓	-

Vilarinho et al. (2021)	Portugal	-	-	-	-	✓	-
Croitoru et al. (2013)	Romania	-	-	-	-	✓	-
Al Moamary. (2010)	Saudi Arabia	-	-	-	-	✓	-
Naseer et al. (2017)	Saudi Arabia	-	-	-	-	-	-
Lee et al. (2022)	South Korea	-	-	-	-	✓	-
Pacheco et al. (2021)	Spain	-	-	-	-	✓	-
Fernandez et al. (2009)	Spain	-	-	-	-	✓	-
Galdiz et al. (2021)	Spain	-	-	-	-	✓	-
Gonzalez-Montesinos et al. (2021)	Spain	-	-	-	-	✓	-
Güell-Rous et al. (2021)	Spain	-	-	-	-	✓	-
Güell et al. (2017)	Spain	-	-	-	-	✓	-
Guell et al. (2008)	Spain	-	-	-	-	✓	-
Güell et al. (2000)	Spain	-	-	-	-	-	-
Puente-Maestu et al. (2003)	Spain	-	-	-	-	-	-
Resqueti et al. (2007)	Spain	-	-	-	-	✓	-
Román et al. (2013)	Spain	-	-	✓	-	✓	-
Rubí et al. (2010)	Spain	-	-	-	-	✓	-
Varas et al. (2018)	Spain	-	-	-	-	✓	-
Persson et al. (2000)	Sweden	-	-	-	-	✓	-
Theander et al. (2009)	Sweden	-	-	✓	-	✓	-
Zakrisson et al. (2011)	Sweden	-	-	-	-	✓	-
Coronado et al. (2003)	Switzerland	-	-	-	-	✓	-
Guler et al. (2022)	Switzerland	-	-	-	-	✓	-
Puhan et al. (2006)	Switzerland	-	-	-	-	✓	-
RauschOsthoff et al. (2021)	Switzerland	-	-	-	-	✓	-
Cheng et al. (2014)	Taiwan	-	-	-	-	✓	-
Jao et al. (2022)	Taiwan	-	-	-	-	✓	-
Lan et al. (2013)	Taiwan	-	-	-	-	-	-
Lan et al. (2011)	Taiwan	-	-	-	-	✓	-
Lan et al. (2014)	Taiwan	-	-	-	-	✓	-
Augustin et al. (2022)	The Netherlands	-	-	-	-	✓	-
Braeken et al. (2017)	The Netherlands	-	-	-	-	✓	-
Cleutjens et al. (2017)	The Netherlands	-	✓	-	-	✓	-
Creutzberg et al. (2000)	The Netherlands	-	-	-	-	✓	-
Creutzberg et al. (2003)	The Netherlands	-	-	-	-	✓	-
de Roos et al. (2018)	The Netherlands	-	-	-	-	✓	-
Effing et al. (2011)	The Netherlands	-	-	-	-	✓	-
Franssen et al. (2004)	The Netherlands	-	-	-	-	✓	-
Houben-Wilke et al. (2018)	The Netherlands	-	-	-	-	✓	-
Klijn et al. (2015)	The Netherlands	-	-	-	-	✓	-

Kruis et al. (2010)	The Netherlands	-	-	-	-	✓	-
Sillen et al. (2014)	The Netherlands	-	-	-	-	✓	-
Smid et al. (2017)	The Netherlands	-	✓	-	-	✓	-
Spruit et al. (2015)	The Netherlands	-	-	-	-	✓	-
Stoilkova-Hartmann et al. (2015)	The Netherlands	-	-	-	-	✓	-
Stoilkova et al. (2013)	The Netherlands	-	-	-	-	✓	-
Van Helvoort et al. (2011)	The Netherlands	-	-	-	-	✓	-
Van Herck et al. (2019)	The Netherlands	-	✓	-	-	✓	-
van Wetering et al. (2010)	The Netherlands	-	-	-	-	✓	-
van Wetering et al. (2010)	The Netherlands	-	-	-	-	✓	-
Verberkt et al. (2021)	The Netherlands	-	-	-	-	✓	-
Andrews et al. (2015)	UK	-	-	-	-	✓	✓
Barker et al. (2021)	UK	-	-	-	-	✓	-
Bestall et al. (2003)	UK	-	-	-	-	✓	-
Boutou et al. (2016)	UK	-	-	-	-	✓	-
Calvert et al. (2011)	UK	-	-	-	-	✓	-
Canavan et al. (2015)	UK	-	-	-	-	✓	-
Chaplin et al. (2017)	UK	-	-	-	-	✓	-
Chaplin et al. (2015)	UK	-	-	-	-	✓	-
Dodd et al.(2011)	UK	-	-	-	-	✓	-
Dyer et al. (2013)	UK	-	-	-	-	✓	-
Dyer et al. (2012)	UK	-	-	-	-	✓	-
Evans et al. (2009)	UK	-	-	-	-	✓	-
Finnerty et al. (2001)	UK	-	-	-	-	✓	-
Fuld et al. (2005)	UK	-	-	-	-	✓	-
Garrod et al. (2000)	UK	-	-	-	-	✓	-
Garrod et al. (2008)	UK	-	-	-	-	✓	-
Garrod et al. (2000)	UK	-	-	-	-	✓	-
Griffiths et al. (2000)	UK	-	-	-	-	✓	-
Haave and Hyland. (2008)	UK	-	-	-	-	✓	-
Haave et al. (2008)	UK	-	-	-	-	✓	-
Haave et al. (2007)	UK	-	-	-	-	✓	-
Hogg et al. (2012)	UK	-	-	-	-	✓	✓
Horton et al. (2021)	UK	-	-	-	-	✓	-
Horton et al. (2018)	UK	-	-	-	-	✓	-
Jones et al. (2009)	UK	-	-	-	-	✓	-
Jones et al. (2015)	UK	-	-	-	-	✓	-
Jones et al. (2013)	UK	-	-	-	-	✓	-
Kon et al. (2014)	UK	-	-	-	-	✓	-
Kon et al. (2014)	UK	-	-	-	-	✓	-

Kon et al. (2014)	UK	-	-	-	-	✓	-
Lewis et al. (2019)	UK	-	-	-	-	✓	-
Liddell and Webber (2010)	UK	-	-	-	-	✓	-
Maddocks et al. (2016)	UK	-	-	-	-	✓	-
Maglakelidze et al. (2022)	UK	-	✓	✓	-	✓	✓
Majewski et al. (2010)	UK	-	-	-	-	✓	-
McDonnell et al. (2014)	UK	-	-	-	-	✓	-
Mitchell et al. (2014)	UK	-	-	-	-	✓	✓
Moore et al. (2009)	UK	-	-	-	-	✓	-
Ngaage et al. (2004)	UK	-	-	-	-	✓	-
Nolan et al. (2019)	UK	-	-	-	-	✓	-
Nolan et al. (2017)	UK	-	-	-	-	✓	-
Nolan et al. (2016)	UK	-	-	-	-	✓	-
O'Neill et al. (2007)	UK	-	-	-	-	✓	-
Revitt et al. (2013)	UK	-	-	-	-	✓	-
Sewell et al. (2005)	UK	-	-	-	-	✓	-
Sewell et al. (2006)	UK	-	-	-	-	✓	-
Singh et al. (2001)	UK	-	-	-	-	✓	-
Singh et al. (2008)	UK	-	-	-	-	✓	-
Steiner et al. (2003)	UK	-	-	-	-	✓	-
Stone et al. (2021)	UK	-	-	-	-	✓	-
Sundararajan et al. (2010)	UK	-	-	-	-	✓	-
Vincent et al. (2011)	UK	-	-	-	-	✓	-
Ward et al. (2021)	UK	-	-	-	-	✓	-
Ward et al. (2002)	UK	-	-	-	-	✓	-
Waterhouse et al. (2010)	UK	-	-	-	-	✓	-
White et al. (2002)	UK	-	-	-	-	✓	-
Wilson et al. (2015)	UK	-	-	-	-	✓	-
Yohannes et al. (2021)	UK	-	-	-	-	✓	-
Yohannes et al. (2022)	UK	-	-	-	-	✓	-
Yohannes et al. (2022)	UK	-	-	-	-	✓	-
Yohannes, et al. (2016)	UK	-	-	-	-	✓	-
Yohannes et al. (2019)	UK	-	-	-	-	✓	-
Alexander and Benton. (2008)	USA	-	-	-	-	✓	-
Alexander et al. (2008)	USA	-	-	-	-	✓	-
Alsaraireh and Aloush. (2017)	USA	-	-	-	-	-	-
Bamonti et al. (2022)	USA	-	-	-	-	✓	✓
Benzo et al. (2021)	USA	-	✓	-	-	✓	-
Berry et al. (2010)	USA	-	-	-	-	✓	-
Bhandari et al. (2013)	USA	-	-	-	-	✓	-
Carrieri-Kohlman et al. (2005)	USA	-	-	-	-	✓	-

Chalise et al. (2016)	USA	-	-	-	-	✓	-
Dallas et al. (2009)	USA	-	-	-	-	✓	-
Datta and Zuwallack. (2013)	USA	-	-	-	-	✓	-
Donesky et al. (2014)	USA	-	-	-	-	✓	-
Drwal et al. (2022)	USA	-	✓	-	-	✓	✓
Ferreira et al. (2006)	USA	-	-	-	-	✓	-
Kaelin et al. (2001)	USA	-	-	-	-	✓	-
Kaplan et al. (2004)	USA	-	-	-	-	✓	✓
Kiongera and Houde. (2015)	USA	-	-	-	-	✓	✓
Mador et al. (2001)	USA	-	-	-	-	-	-
Mador et al. (2005)	USA	-	-	-	-	-	-
McCarroll et al. (2013)	USA	-	-	-	-	✓	-
McFarland et al. (2012)	USA	-	-	-	-	✓	-
Mosher et al. (2022)	USA	-	-	-	-	✓	-
Myers et al. (2021)	USA	-	-	-	-	✓	✓
Normandin et al. (2002)	USA	-	-	-	-	✓	-
Ramachandran et al. (2008)	USA	-	-	-	-	✓	-
Raskin et al. (2006)	USA	-	-	-	-	✓	-
Stulbarg et al. (2002)	USA	-	-	-	-	✓	-
Thabet et al. (2022)	USA	-	-	-	-	✓	-
ZuWallack et al. (2006)	USA	-	-	-	-	✓	-
<b>Studies from upper-middle income countries</b>							
da Silva et al. (2018)	Brazil	-	-	-	-	✓	-
De Godoy and De Godoy. (2003)	Brazil	-	✓	✓	-	✓	-
de Oliveira et al. (2010)	Brazil	-	-	-	-	✓	-
Felcar et al. (2018)	Brazil	-	-	-	-	✓	-
Cui et al. (2019)	China	-	-	-	-	✓	-
Deng et al. (2021)	China	-	✓	-	-	✓	-
Jin et al. (2021)	China	-	-	-	-	✓	-
Li et al. (2022)	China	-	✓	-	-	✓	-
Li et al. (2018)	China	-	✓	-	-	✓	-
Li et al. (2018)	China	-	✓	✓	-	✓	-
Lindsay et al. (2005)	China	-	-	-	-	✓	-
Lou et al. (2015)	China	✓	✓	-	-	✓	-
Ma et al. (2021)	China	-	-	-	-	✓	-
Ma et al. (2022)	China	-	✓	-	-	✓	-
Ma et al. (2022)	China	-	-	-	-	✓	-
Ng et al. (2014)	China	-	✓	✓	-	✓	-
Xie et al. (2021)	China	-	-	-	-	✓	-
Xu et al. (2022)	China	-	✓	-	-	✓	-
Zhang & Zhao. (2021)	China	-	✓	-	-	✓	-
Zhang et al. (2022)	China	✓	✓	✓	-	✓	-

Benavides Córdoba and Wilches-Luna. (2018)	Colombia	-	-	-	-	✓	-
Chuatrakoon et al. (2022)	Thailand	-	-	-	-	✓	-
Santiworakul et al. (2021)	Thailand	-	-	-	-	✓	-
Seetee et al. (2016)	Thailand	✓	✓	✓	-	✓	-
Akinci and Olgun. (2011)	Turkey	-	-	-	-	-	-
Candemir et al. (2021)	Turkey	-	-	-	-	✓	-
Deniz et al. (2019)	Turkey	-	-	-	-	✓	-
Duruturk et al. (2016)	Turkey	-	-	-	-	✓	-
Ekren et al. (2018)	Turkey	-	-	-	-	✓	-
Elci et al. (2008)	Turkey	-	-	-	-	✓	-
Ergün et al. (2011)	Turkey	-	-	-	-	-	-
Gurgun et al. (2013)	Turkey	-	-	-	-	✓	-
Kaymaz et al. (2015)	Turkey	-	-	-	-	-	-
Kaymaz et al. (2017)	Turkey	-	-	-	-	✓	-
Kilic et al. (2021)	Turkey	-	-	-	-	✓	-
Sahin & Naz. (2022)	Turkey	-	-	-	-	✓	-
Sahin et al. (2018)	Turkey	-	-	-	-	✓	-
<b>Studies from lower-middle income countries</b>							
Ghanem et al. (2010)	Egypt	-	-	-	-	-	-
Pande et al. (2005)	India	-	-	-	-	-	-
Priya et al. (2021)	India	-	-	-	-	✓	-
Ragaselvi et al. (2019)	India	-	-	-	-	✓	-
Zaki et al. (2022)	India	-	-	-	-	✓	-
Wiyono et al. (2006)	Indonesia	-	-	-	-	✓	-
Khoshkesht et al. (2015)	Iran	-	✓	-	-	✓	-
Ige et al. (2010)	Nigeria	-	-	-	-	✓	-
Sooriyakanthan et al. (2022)	Sri Lanka	-	-	-	-	✓	-
Mkacher et al. (2015)	Tunisia	-	-	-	-	✓	-
<b>N(total studies reporting SDH)</b>		8 (2.3%)	35 (10.0%)	21 (6.0%)	1 (0.3%)	331 (94.3%)	12 (3.4%)



**Appendix 6. Social determinants of health identified in SLH studies according to the WHO Commission on SDH framework**

Studies from high-income countries							
Study reference	Country	Income	Education	Occupation	Social class	Gender	Race/ethnicity
Kaasgaard et al. (2022)	Denmark	✓	✓	✓	-	✓	-
Kaasgaard et al. (2022)	Denmark	-	-	-	-	✓	-
Cahalan et al. (2021)	UK	-	-	-	-	✓	-
Lord et al. (2012)	UK	-	-	-	-	-	-
Lord et al. (2010)	UK	-	-	-	-	-	-
Philip et al. (2020)	UK	-	-	-	-	✓	-
Studies from upper-middle income countries							
Bonilha et al. (2009)	Brazil	-	-	-	-	✓	-
Liu et al. (2019)	China	-	✓	-	-	✓	-
<b>N(total studies reporting SDH)</b>		1 (12.5%)	2 (25.0%)	1 (12.5%)	0 (0.0%)	6 (75.0%)	0 (0.0%)

**Appendix 7. Social determinants of health identified in MPCII studies according to the WHO Commission on SDH framework**

Studies from high-income countries							
Study reference	Country	Income	Education	Occupation	Social class	Gender	Race/ethnicity
Aiken et al. (2006)	USA	-	✓	-	-	✓	✓
Archibald et al. (2021)	Canada	✓	-	-	-	✓	-
Bassi et al. (2021)	Italy	-	-	-	-	✓	-
Bischoff et al. (2021)	USA	-	-	-	-	✓	✓
Buckingham et al. (2015)	UK	-	-	-	-	✓	-
Duenk et al. (2017)	The Netherlands	-	✓	-	-	✓	-
Farquhar et al. (2009)	UK	-	-	-	-	✓	-
Farquhar et al. (2010)	UK	-	-	-	-	✓	-
Farquhar et al. (2016)	UK	-	-	✓	-	✓	-
Gillis et al. (2017)	Canada	-	-	-	-	-	-
Higginson et al. (2014)	UK	-	-	-	-	✓	-
Horton et al. (2013)	Canada	✓	-	✓	-	✓	✓
Iupati. (2016)	New Zealand	-	-	-	-	✓	✓
Janssens et al. (2019)	Switzerland	-	-	-	-	✓	-
Koff et al. (2021)	USA	-	✓	-	-	✓	✓
Lindell et al. (2021)	USA	✓	✓	-	-	✓	✓
Lockhart et al. (2003)	USA	-	-	-	-	✓	-
Long et al. (2014)	USA	-	-	-	-	✓	✓
Lyth et al. (2021)	Sweden	-	-	-	-	✓	-
Mayr et al. (2021)	USA	-	-	-	-	✓	-
Mooren et al. (2022)	The Netherlands	-	-	-	-	✓	✓
Neo et al. (2021)	Singapore	✓	-	-	-	✓	✓
Qian et al. (2018)	Australia	-	-	-	-	✓	-
Rabow et al. (2003a)	USA	-	✓	✓	-	✓	✓
Rabow et al. (2004)	USA	-	✓	✓	-	✓	✓
Reipas et al. (2021)	Canada	-	-	-	-	✓	-
Rocker et al. (2017)	Canada	-	-	-	-	-	-
Scheerens et al. (2018)	Belgium	-	✓	-	-	✓	-
Schloesser et al. (2022)	Germany	-	-	-	-	✓	-
Schunk et al. (2021)	Germany	-	-	-	-	✓	-
Smallwood et al. (2018)	Australia	-	-	-	-	✓	-
Steinel et al. (2003)	USA	-	-	-	-	-	-
Van Dam et al. (2014)	The Netherlands	-	-	-	-	✓	-
Verma et al. (2017)	Canada	-	-	-	-	-	-
Vitacca et al. (2019)	Italy	-	✓	-	-	✓	-
<b>N(total studies reporting SDH)</b>		4 (11.4%)	8 (22.9%)	4 (11.4%)	0 (0.0%)	31 (88.6%)	11 (31.4%)