

Appendix 3: Search strategies for each of the five databases (Initially searched for the period 01.01.2002 - 28.08.2020, updated to include 12.05.2021)

Databases searched

- MEDLINE ALL 2002 to May 11, 2021
 - o Ovid MEDLINE, PubMed (only 28.08.2020);
 - o Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily 2002 to August 27, 2020
- Embase 2002 to 2021, Ovid
- Web of Science Core Collection, Clarivate Analytics
- Global Index Medicus, WHO
- COVID-19 Evidence, Epistemonikos Foundation

Updated search 12.05.2021

We searched:

- **PubMed, US National Library of Medicine (NLM):** pubmed.ncbi.nlm.nih.gov/
Only 28.08.2020 as string was not available in 2021.
- **MEDLINE ALL 1946 to May 11, 2021, Ovid (searched 12.05.2021)**

#	Searches	Results
1	COVID-19 Vaccines/	2510
2	Coronavirus/	4692
3	Betacoronavirus/	33218
4	Coronavirus Infections/	44847
5	Coronaviridae Infections/	919
6	Severe Acute Respiratory Syndrome/	5545
7	Pandemics/	56289
8	(COVID-19 or COVID 19 or COVID19 or 2019-nCoV or SARS2 or SARS-CoV or SARS-CoV-2 or SARS-Cov-19 or coronavirus* or corona or pandemic?).ti,ab,kf.	177584
9	(BNT162 or BNT-162 or mRNA-1273 or mRNA1273 or INO-4800 or INO4800 or ChAdOx1 or Ad5-nCoV).ti,ab,kf,hw.	218
10	or/2-9	184722
11	Vaccines/	22577
12	Viral Vaccines/	27055
13	Vaccination/	85401
14	Vaccination Coverage/	1540
15	Mass Vaccination/	3208
16	Immunization/	51563
17	Immunization Programs/	11524
18	(vaccin* or immuni*).ti,ab,kf.	576919
19	or/11-18	610926
20	"Delivery of Health Care"/	95912

21	"Health Services Needs and Demand"/	54005
22	Resource Allocation/	8895
23	Health Care Rationing/	11853
24	Health Services Accessibility/	78488
25	Health Equity/	1805
26	Right to Health/	131
27	Universal Health Care/	149
28	Healthcare Disparities/	18787
29	Socioeconomic Factors/	162607
30	Social Justice/	12551
31	Global Health/	50200
32	Human Rights/	14729
33	((equit* or equal* or fair* or inequit* or unequal or unfair* or global*) adj3 (access* or allocat* or distribut* or deliver* or provision or supply or supplies)).ti,ab,kf.	32465
34	(right to health* or universal health*).ti,ab,kf.	7779
35	((health* or health care) adj (rationing or disparities)).ti,ab,kf.	15193
36	or/20-35	488375
37	10 and 19 and 36	1157
38	1 and 36	280
39	37 or 38	1194
40	(202008* or 202009* or 202010* or 202011* or 202012* or 2021*).dt,dp,ed,ep,yr.	1805737
41	39 and 40	588
42	38 or 41	608

• **Embase 1974 to 2021 Week 18 (searched 12.05.2021)**

#	Searches	Results
1	SARS-CoV-2 vaccine/	2292
2	coronavirus disease 2019/	106145
3	coronavirinae/	3003
4	betacoronavirus/	7651
5	coronavirus infection/	12666
6	coronaviridae infection/	187
7	pandemic/	65235
8	(COVID-19 or COVID 19 or COVID19 or 2019-nCoV or SARS2 or SARS-CoV or SARS-CoV-2 or SARS-Cov-19 or coronavirus* or corona or pandemic?).mp.	195467

9	(BNT162 or BNT-162 or mRNA-1273 or mRNA1273 or INO-4800 or INO4800 or ChAdOx1 or Ad5-nCoV).mp.	355
10	or/3-9	195821
11	vaccine/	63516
12	virus vaccine/	20586
13	severe acute respiratory syndrome vaccine/	453
14	vaccination/	151179
15	vaccination coverage/	2788
16	immunization/	98822
17	mass immunization/	3739
18	(vaccin* or immuni*).ti,ab,kw,ot.	685955
19	or/11-18	736294
20	health care delivery/	184159
21	resource management/	10987
22	resource allocation/	22438
23	health care access/	69640
24	health care quality/	250577
25	health equity/	4605
26	right to health/	214
27	universal health care/	337
28	health care disparity/	17595
29	socioeconomics/	147326
30	social justice/	11121
31	global health/	12881
32	human rights/	26721
33	((equit* or equal* or fair* or inequit* or unequal or unfair* or global*) adj3 (access* or allocat* or distribut* or deliver* or provision or supply or supplies)).ti,ab,kw,ot.	42137
34	(right to health* or universal health*).ti,ab,kw,ot.	9211
35	((health* or health care) adj (rationing or disparities)).ti,ab,kw,ot.	19032
36	or/20-35	714178
37	10 and 19 and 36	1372
38	1 and 36	266
39	2 and 19 and 36	692
40	or/37-39	1423
41	limit 40 to (conference abstracts or embase)	1129
42	limit 37 to (conference abstracts or embase)	1078

43	(202008* or 202009* or 202010* or 202011* or 202012* or 2021*).dd,em,yr.	1850404
44	42 and 43	439
45	limit 38 to (conference abstracts or embase)	259
46	limit 39 to (conference abstracts or embase)	652
47	44 or 45 or 46	751
48	47 use oemez	751

- **Web of Science, Clarivate Analytics** (searched [12.05.2021](#))

Advanced search - Topic

COVID-19 OR "COVID 19" OR COVID19 OR 2019-nCoV OR "2019 nCoV" OR SARS2 OR SARS-CoV OR "SARS CoV" OR SARS-CoV-2 OR "SARS CoV 2" OR SARS-Cov-19 OR "SARS Cov 19" OR coronavirus OR corona OR pandemic OR pandemics

AND

vaccin* OR immuni*

AND

equity OR equitable OR equal OR equally OR inequity OR inequitable OR unequal OR unequally OR fair* OR unfair* OR "right to health" OR "right to healthcare" OR "universal health" OR "universal healthcare" OR "healthcare rationing" OR "health care rationing" OR "healthcare disparity" OR "healthcare disparity" OR "healthcare disparities" OR "healthcare disparities"

- **Global Index Medicus, WHO:** www.globalindexmedicus.net (searched [14.05.2021](#))

Advanced search in Title, abstract, subject

COVID-19 OR "COVID 19" OR COVID19 OR 2019-nCoV OR "2019 nCoV" OR SARS2 OR SARS-CoV OR "SARS CoV" OR SARS-CoV-2 OR "SARS CoV 2" OR SARS-Cov-19 OR "SARS Cov 19" OR coronavirus OR corona OR pandemic OR pandemics

AND

vaccine OR vaccines OR vaccination OR immunization OR immunisation

AND

equity OR equitable OR equal OR equally OR inequity OR inequitable OR unequal OR unequally OR fair* OR unfair* OR "right to health" OR "right to healthcare" OR "universal health" OR "universal healthcare" OR "healthcare rationing" OR "health care rationing" OR "healthcare disparity" OR "healthcare disparity" OR "healthcare disparities" OR "healthcare disparities" OR global OR globally

- **COVID-19 Evidence, Epistemonikos Foundation:**

app.iloveevidence.com/loves/5e6fdb9669c00e4ac072701d?utm=epdb_en (searched [14.05.2021](#))

(vaccin* OR immuniz* OR immunis*) AND (equity OR equitable OR equal OR equally OR inequity OR inequitable OR unequal OR unequally OR fair* OR unfair* OR "right to health" OR "right to healthcare" OR "universal health" OR "universal healthcare" OR "healthcare rationing" OR "health care rationing" OR "healthcare disparity" OR "healthcare disparity" OR "healthcare disparities" OR "healthcare disparities" OR global OR globally) AND (access* or allocat* or distribut* or deliver* or provision or supply or supplies)
 LIMITED TO Type of publication: Pre-print

Original search of databases: 28.08.2020

- **MEDLINE, PubMed** (searched 28.08.2020)

MeSH: "COVID-19 vaccine" [Supplementary Concept]

Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily 1946 to August 27, 2020 (searched 28.08.2020)

#	Searches	Results
1	Coronavirus/	3244
2	Betacoronavirus/	16530
3	Coronavirus Infections/	24138
4	Coronaviridae Infections/	906
5	Severe Acute Respiratory Syndrome/	4873
6	Pandemics/	24349
7	(COVID-19 or COVID 19 or COVID19 or 2019-nCoV or SARS2 or SARS-CoV or SARS-CoV-2 or SARS-Cov-19 or coronavirus* or corona or pandemic?).ti,ab,kf.	91205
8	(BNT162 or BNT-162 or mRNA-1273 or mRNA1273 or INO-4800 or INO4800 or ChAdOx1 or Ad5-nCoV).ti,ab,kf,hw.	51
9	or/1-8	97109
10	Vaccines/	21690
11	Viral Vaccines/	25884
12	Vaccination/	81687
13	Vaccination Coverage/	1160
14	Mass Vaccination/	3038
15	Immunization/	50752
16	Immunization Programs/	10877
17	(vaccin* or immuni*).ti,ab,kf.	546309
18	or/10-17	579947
19	"Delivery of Health Care"/	91173
20	"Health Services Needs and Demand"/	53044
21	Resource Allocation/	8501
22	Health Care Rationing/	11514
23	Health Services Accessibility/	74764
24	Health Equity/	1291
25	Right to Health/	75
26	Universal Health Care/	80
27	Healthcare Disparities/	17030
28	Socioeconomic Factors/	157123
29	Social Justice/	12160
30	Global Health/	47402
31	Human Rights/	14384

32	((equit* or equal* or fair* or inequit* or unequal or unfair* or global*) adj3 (access* or allocat* or distribut* or deliver* or provision or supply or supplies)).ti,ab,kf.	29976
33	(right to health* or universal health*).ti,ab,kf.	7053
34	((health* or health care) adj (rationing or disparities)).ti,ab,kf.	13345
35	or/19-34	466021
36	9 and 18 and 35	632

• **Embase 1974 to 2020 Week 34, Ovid (searched 28.08.2020)**

#	Searches	Results
1	coronavirinae/	2268
2	betacoronavirus/	4632
3	coronavirus infection/	8485
4	coronaviridae infection/	166
5	pandemic/	30028
6	(COVID-19 or COVID 19 or COVID19 or 2019-nCoV or SARS2 or SARS-CoV or SARS-CoV-2 or SARS-Cov-19 or coronavirus* or corona or pandemic?).mp.	103695
7	(BNT162 or BNT-162 or mRNA-1273 or mRNA1273 or INO-4800 or INO4800 or ChAdOx1 or Ad5-nCoV).mp.	85
8	or/1-7	103962
9	vaccine/	60026
10	virus vaccine/	19609
11	severe acute respiratory syndrome vaccine/	385
12	vaccination/	140276
13	vaccination coverage/	2060
14	immunization/	94131
15	mass immunization/	3511
16	(vaccin* or immuni*).ti,ab,kw,ot.	643022
17	or/9-16	689815
18	health care delivery/	174154
19	resource management/	10271
20	resource allocation/	20867
21	health care access/	62445
22	health care quality/	241073
23	health equity/	3269
24	right to health/	105
25	universal health care/	155
26	health care disparity/	15646
27	socioeconomics/	140163
28	social justice/	10427
29	global health/	9804
30	human rights/	24894
31	((equit* or equal* or fair* or inequit* or unequal or unfair* or global*) adj3 (access* or allocat* or distribut* or deliver* or provision or supply or supplies)).ti,ab,kw,ot.	38602
32	(right to health* or universal health*).ti,ab,kw,ot.	8082
33	((health* or health care) adj (rationing or disparities)).ti,ab,kw,ot.	16415
34	or/18-33	670545
35	8 and 17 and 34	672
36	limit 35 to (conference abstracts or embase)	529

- **Global Index Medicus, WHO** (searched [28.08.2020](#))

Advanced search in Title, abstract, subject

COVID-19 OR "COVID 19" OR COVID19 OR 2019-nCoV OR "2019 nCoV" OR SARS2 OR SARS-CoV OR "SARS CoV" OR SARS-CoV-2 OR "SARS CoV 2" OR SARS-Cov-19 OR "SARS Cov 19" OR coronavirus OR corona OR pandemic OR pandemics

AND

vaccine OR vaccines OR vaccination OR immunization OR immunisation

AND

equity OR equitable OR equal OR equally OR inequity OR inequitable OR unequal OR unequally OR unfair OR unfairly OR disparity OR disparities OR global OR globally

- **Web of Science, Clarivate Analytics** (searched [28.08.2020](#))

COVID-19 OR "COVID 19" OR COVID19 OR 2019-nCoV OR "2019 nCoV" OR SARS2 OR SARS-CoV OR "SARS CoV" OR SARS-CoV-2 OR "SARS CoV 2" OR SARS-Cov-19 OR "SARS Cov 19" OR coronavirus OR corona OR pandemic OR pandemics

AND

vaccin* OR immuni*

AND

equity OR equitable OR equal OR equally OR inequity OR inequitable OR unequal OR unequally OR unfair OR unfairly OR "right to health" OR "right to healthcare" OR "universal health" OR "universal healthcare" OR "healthcare rationing" OR "health care rationing" OR "healthcare disparity" OR "healthcare disparity" OR "healthcare disparities" OR "healthcare disparities"