

AUHE Search Strategy: Economic Model Search Strategies

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About the strategies

These search strategies aim to retrieve studies with a description of an Economic Model or a Decision-Analytic Model. There are two variants: with/without a health state txt searches. The search with health state textwords (e.g. Medline Line 18) is more sensitive than the search which doesn't contain textwords for health states (e.g. Medline Line 17)

This strategy was first developed in 2010 by Judy Wright and has been further developed by iterative validation. It was last checked 01/04/2021 and peer-reviewed by Natalie King and Judy Wright.

This document lists search filters for:

- CINAHL (Ebsco)
- Cochrane Library (Wiley)
- EMBASE (Ovid)
- Global Health (Ovid)
- HMIC Health Management Information Consortium
- MEDLINE (Ovid)
- PsycINFO (Ovid)
- Web of Science
- Scopus

Table 1 Search field and symbol key

	OVID	EBSCO	Cochrane	WOS
Title field	.ti	TI	ti,	TI
Abstract field	.ab	AB	ab	
Other fields	.tw- title word	AF – all fields TX- Text word	Kw - keyword	TS=Topic
Subject heading (MESH)	/ (if the / appears after a word e.g. policy/)	MH	MeSH descriptor: [Africa] this term only	
exploded subject heading	exp	+ (MH "Europe, Eastern+")	MeSH descriptor: [Africa] explode all trees	
Adjacent to (two words within a (number) of words apart)	adj2	N2	near/2	Near/2

Database: Cinahl

S16 S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14
(28,518)

S15 S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 or S12 (26,070)

S14 TI ("disease state*" and (econom* or cost* or qaly* or utilit*)) OR AB ("disease state*" and (econom* or cost* or qaly* or utilit*)) (381)

S13 TI "health state*" OR AB "health state*" (2,799)

S12 TI ("transition probabilit*" and (state or states or model*)) OR AB ("transition probabilit*" and (state or states or model*)) (505)

S11 MH Economic Value of Life (653)

S10 TI state transition model* OR AB state transition model* (450)

S9 TI ((econom* or cost or costs) n5 model*) OR AB ((econom* or cost or costs) n5 model*)
(9,421)

S8 TI decision n4 model* OR AB decision n4 model* (6,055)

S7 TI Markov n4 model* OR AB Markov n4 model* (3,274)

S6 TI Discrete event* n7 model* OR AB Discrete event* n7 model* (327)

S5 TI Discrete event* n4 simulat* OR AB Discrete event* n4 simulat* (383)

S4 TX simulat* n2 model* AND TX decision* (1,042)

S3 TI patient level n7 simulat* OR AB patient level n7 simulat* (154)

S2 TI microsimulat* OR AB microsimulat* (593)

S1 (MH "Decision Trees") OR (MH "Decision Support Techniques") (9418)

Database: Cochrane Library

#1 MeSH descriptor: [Models, Economic] explode all trees 360

#2 MeSH descriptor: [Models, Econometric] explode all trees 110

#3 MeSH descriptor: [Markov Chains] explode all trees 276

#4 MeSH descriptor: [Decision Trees] explode all trees 161

#5 MeSH descriptor: [Decision Support Techniques] explode all trees 2489

#6 microsimulat*:ti,ab,kw 127

#7 ("patient level" near/8 simulat*):ti,ab,kw 33

#8 ((simulat* near/3 model*) and decision*):ti,ab,kw 143

#9 ("discrete event*" near/5 simulat*):ti,ab,kw 52

#10 ("discrete event*" near/8 model*):ti,ab,kw 45

#11	(decision* near/5 model*):ti,ab,kw	1386
#12	(model* near/5 markov*):ti,ab,kw	1225
#13	((econom* or cost or costs) near/6 model*):ti,ab,kw	3408
#14	"state transition model*":ti,ab,kw	54
#15	("transition probabilit*" and (state or states or model*)):ti,ab,kw	0
#16	"health state*":ti,ab,kw	808
#17	("disease state*" and (econom* or cost* or qaly* or utilit*)):ti,ab,kw	72
#18	{or #1-#15}	7545
#19	{or #1-#17}	8257

Database: Embase Classic+Embase <1947 to 2021 June 07>

1	simulation/ or computer simulation/	321058
2	decision making/	248803
3	1 and 2	3955
4	Economic model/ or econometric model/	2571
5	*statistical model/	24085
6	decision support system/	23790
7	hidden markov model/ or markov chain/	10650
8	((econom* or cost or costs) adj6 model*).tw.	42526
9	((simulat* adj3 model*) and decision*).tw.	3673
10	microsimulat*.tw.	2086
11	(patient level adj8 simulat*).tw.	367
12	(discrete event* adj5 simulat*).tw.	1347
13	(discrete event* adj8 model*).tw.	1096
14	(decision* adj5 model*).tw.	25480
15	(model* adj5 markov*).tw.	23236
16	(decision adj2 tree*).tw.	14929
17	"state transition model*".tw.	1059
18	("transition probabilit*" and (state or states or model*)).tw.	3840
19	"health state*".tw.	12268
20	("disease state*" and (econom* or cost* or qaly* or utilit*)).tw.	2965

21 or/3-18 [WITHOUT txt word search for health states] 145439
22 or/3-20 [WITH txt word search for health states] 156100

Database: Global Health <1910 to 2021 Week 22>

1 econometric models/ 90
2 markov processes/ 536
3 decision support systems/ 340
4 ((econom* or cost or costs) adj2 model*).tw. 2448
5 ("cost effectiveness" adj2 model*).tw. 421
6 (markov* adj5 model*).tw. 2116
7 (decision* adj8 model*).tw. 3720
8 (decision adj2 tree*).tw. 1617
9 (discrete event* adj8 model*).tw. 99
10 (discrete event* adj5 simulat*).tw. 103
11 (patient level adj8 simulat*).tw. 14
12 microsimulat*.tw. 479
13 ("health state*" and (model* or simulat*)).tw. 374
14 ("disease state*" and (model* or simulat*)).tw. 506
15 "state transition model*".tw. 140
16 ("transition probabilit*" and (state or states or model*)).tw. 291
17 ("disease state*" and (econom* or cost* or qaly* or utilit*)).tw. 171
18 or/1-17 [Economic models] 10461

Database: HMIC Health Management Information Consortium <1983 - present>

1 exp Economic models/ 168
2 exp decision making/ and (model* or markov).tw. 649
3 exp Decision analysis/ 52
4 decision models/ 50
5 microsimulat*.tw. 47
6 simulation techniques/ 244
7 (patient level adj8 simulat*).tw. 2

8 (simulat* adj3 model*).tw. and decision*.mp. 71
9 (discrete event* adj5 simulat*).tw. 84
10 (discrete event* adj8 model*).tw. 54
11 (decision* adj5 model*).tw. 555
12 (decision adj2 tree*).tw. 87
13 markov*.tw. 255
14 ((econom* or costs or cost) adj6 model*).tw. 1442
15 "state transition model*".tw. 25
16 ("transition probabilit*" and (state or states or model*)).tw. 17
17 "health state*".tw. 342
18 ("disease state*" and (econom* or cost* or qaly* or utilit*)).tw. 14
19 or/1-16 [WITHOUT txt search for health state] 2861
20 or/1-18 [WITH txt search for health state] 3164

Database: Ovid MEDLINE(R) ALL <1946 to June 07, 2021>

1 models, economic/ or models, econometric/ 15647
2 markov chain/ 14994
3 Decision Trees/ 11526
4 decision support techniques/ 21247
5 microsimulat*.tw. 1420
6 (patient level adj8 simulat*).tw. 145
7 (simulat* adj3 model*).tw. and decision*.mp. 2870
8 (discrete event* adj5 simulat*).tw. 879
9 (discrete event* adj8 model*).tw. 722
10 (decision* adj5 model*).tw. 18294
11 (model* adj5 markov*).tw. 16180
12 ((econom* or cost or costs) adj6 model*).tw. 28236
13 "state transition model*".tw. 634
14 ("transition probabilit*" and (state or states or model*)).tw. 2565
15 "health state*".tw. 7006
16 ("disease state*" and (econom* or cost* or qaly* or utilit*)).tw. 1786

17 or/1-14 [WITHOUT txt search for health state] 101882
18 or/1-16 [WITH txt search for health state] 108678

Database: APA PsycInfo <1806 to May Week 5 2021>

1 simulation/ or exp computer simulation/ or models/ 105316
2 decision making/ 77661
3 1 and 2 3664
4 decision support systems/ 3433
5 markov chains/ 1659
6 ((econom* or cost or costs) adj6 model*).tw. 7891
7 (simulat* adj3 model*).tw. and decision*.mp. 891
8 microsimulat*.tw. 201
9 (patient level adj8 simulat*).tw. 14
10 (discrete event* adj5 simulat*).tw. 175
11 (discrete event* adj8 model*).tw. 149
12 (decision* adj5 model*).tw. 11684
13 (model* adj5 markov*).tw. 2431
14 (decision adj2 tree*).tw. 1927
15 "state transition model*".tw. 57
16 ("transition probabilit*" and (state or states or model*)).tw. 407
17 ("disease state*" and (econom* or cost* or qaly* or utilit*)).tw. 182
18 "health state*".tw. 1687
19 or/3-16 [WITHOUT health state search] 28818
20 or/3-18 [WITH health state search] 30498

Database: Web of Science

15 357,884 #13 OR #12 OR #11 OR #10 OR #9 OR #8 OR #7 OR #6 OR #5 OR #4 OR #3 OR #1
[with health states]

14 349,809 #11 OR #10 OR #9 OR #8 OR #7 OR #6 OR #5 OR #4 OR #3 OR #2 OR #1 [without
health states]

13 1,639 TOPIC: ((“disease state*” AND (Econom* OR cost* or qaly* or utilit*)))

12 8,911 TOPIC: (“health state*”)

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# 11 69,169 TOPIC: ((model* NEAR/5 markov*) )
# 10 75,419 TOPIC: ((decision* NEAR/5 model*) )
# 9 6,489 TOPIC: ((discrete event* NEAR/8 model*) )
# 8 10,172 TOPIC: ((discrete event* NEAR/5 simulat*) )
# 7 19,391 TOPIC: (((simulat* NEAR/3 model*) and decision*))
# 6 163 TOPIC: ((patient level NEAR/8 simulat*) )
# 5 3,648 TOPIC: (microsimulat*)
# 4 38,102 TS=((Decision NEAR/2 tree*))
# 3 151,151 TS=((econom* or cost or costs) NEAR/6 model*)
# 2 1,101 TOPIC: ("state transition model*")
# 1 14,974 TOPIC: ("transition probabilit*" and (state or states or model*))
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Database: SCOPUS

14 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 (with health states)

13 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10

12 TITLE-ABS-KEY ("disease state*" AND (econom* OR cost* OR qaly* OR utilit*))

11 TITLE-ABS-KEY ("health state*")

10 TITLE-ABS-KEY (model* W/5 markov)

9 TITLE-ABS-KEY (decision* W/5 model*)

8 TITLE-ABS-KEY ("discrete event*" W/8 model*)

7 TITLE-ABS-KEY ("discrete event*" W/5 simulat*)

6 TITLE-ABS-KEY ((simulat* W/3 model*) W/8 decision*)

5 TITLE-ABS-KEY ("patient level" W/8 simulat*)

4 TITLE-ABS-KEY (microsimulat*)

3 TITLE-ABS-KEY ((econom* OR cost OR costs) W/6 model*)

2 TITLE-ABS-KEY ("state transition model*")

1 TITLE-ABS-KEY (("transition probabilit*" W/10 (state OR states OR model*)))