

Introduction to Searching

How to find literature on a topic in medicine and health care

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Why do a literature review?

- Make yourself familiar with a topic area
- Answer a specific question
- Set your study in context
- Map gaps and patterns

Search, select, evaluate, synthesize, report...

Search Process

- What is your topic / research question?
- What research will help you answer it?
- Where will you find it?
- How will you search to find it?
- How will you keep up-to-date with new research?
- How will you organize what you find?
- How will you write up the search process?

What's your topic?

- Background questions
 - What are electronic cigarettes?
 - How many adults in the UK use electronic cigarettes?
 - How are electronic cigarettes regulated in the UK
- Foreground questions
 - Are electronic cigarettes effective in promoting smoking cessation?
 - Is vaping safe for pregnant women?

What type of publication?

Background questions

- Books
- Reports
- Official publications
- Websites

Foreground questions

- Journal articles
- Preprints
- Conference abstracts
- Study protocols
- Theses/dissertations
- Reports
- Official publications
- Websites

Where to search?

- Library catalogue
 - Books, online journals, theses, databases...
- Bibliographic databases
 - Articles
 - Books and chapters, conference abstracts, theses, reports – in some but not all databases
- Online repositories
 - Study protocols and preprints
- Websites
 - Anything and “everything” ...

Background question: How to search?

- Library catalogue
 - Searching [SOLO: Top tips](#)
- Web searching
 - Academic web – [Google Scholar](#), [LENS.org](#)
 - Search engines – [Google](#), [DuckDuckGo](#)
 - Individual websites – search or browse

Break

Foreground questions: How to search?

Structured search

- **Keywords for each search concept**
- **Combine with AND/OR**
- **Apply limits**
- **Search across multiple databases**

Snowballing

- Citation tracking
 - Forward
 - Backward
- Related articles
- Sibling studies
- Grey literature searching

Structured search: search concepts (1)

In long-term smokers, can electronic cigarettes be used as an effective smoking cessation technique?

Structured search: search concepts (2)

In **long-term smokers**, can **electronic cigarettes** be used as an effective **smoking cessation** technique?

Structured search: PICO (1)

P patient / population / problem

I(E) intervention / exposure

C comparison, control

O outcome

S study design

In long-term smokers, can electronic cigarettes be used as an effective smoking cessation technique?

Structured search: PICO (2)

P	patient / population / problem	→	long-term smokers
I(E)	intervention / exposure	→	electronic cigarettes
C	comparison, control	→	n/a
O	outcome	→	cessation
S	study design	→	systematic reviews / RCTs

In long-term smokers, can electronic cigarettes be used as an effective smoking cessation technique?

Structured search: search terms

Concept 1 (population)



smokers, smoking, tobacco use....

Concept 2 (intervention)



electronic cigarettes, e-cigarettes, vaping, Juul...

Concept 3 (outcome)



cessation, quit, stop, give up...

Concept 4 (study type)

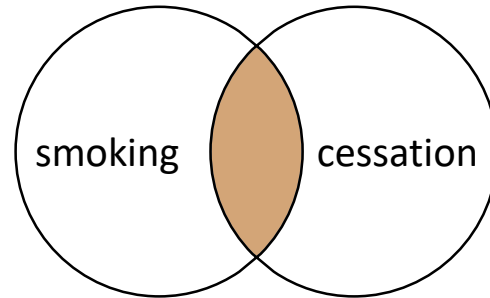


systematic review, RCTs

Structured search: combining terms (1)

AND

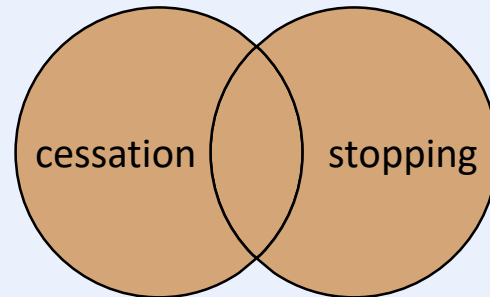
Narrows
your search



smoking AND cessation

OR

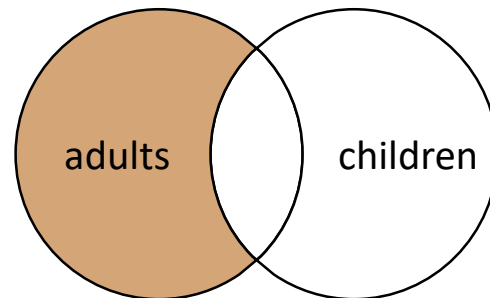
Broadens
your search



cessation OR stopping

NOT

Narrows
your search



adults NOT children

Structured search: combining terms (2)

(smoking **OR** smokers **OR** tobacco use)
AND (electronic cigarettes **OR** e-
cigarettes **OR** vaping **OR** juul)
AND (cessation **OR** quit **OR** stop **OR**
give up)

AND = Combining different search concepts, narrows search

OR = Combining synonyms for the same concept, broadens search

Structured search: applying limits

(smok* OR “tobacco use*”) AND
 (“electronic cigarette*” OR e-cig* OR
vaping OR juul) AND (cessation OR
quit* OR stop* OR “give up”)

Filter by date, language, publication type (e.g. systematic review, RCT), age groups...

Structured search: shortcuts

(smok* **OR** "tobacco use*") **AND**
("electronic cigarette*" **OR** e-cig* **OR**
vaping **OR** juul) **AND** (cessation **OR**
quit* **OR** stop* **OR** "give up")

* = truncation

"" = phrase searching

Structured search: subject search

On Medline, search using Medical Subject Headings (MeSH)

- Articles are tagged with keywords from a structured vocabulary
- A search for these keywords retrieves articles on the topic

Equivalent subject / thesaurus searching available on many databases but not all

Structured search: databases

- Bibliographic databases
 - CINAHL
 - Embase
 - Global Health
 - Medline
 - Web of Science...
- Full list on [Databases A-Z](#) - Subject – Medical Sciences

Break

Foreground questions: How to search?

Structured search

- Keywords for each search concept
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- Search across multiple databases

Snowballing


- **Citation tracking**
 - Forward
 - Backward
- **Related articles**
- **Sibling studies**
- **Grey literature searching**

Snowballing: why do it?

- Finding “missing” research
 - Limited scope of databases – discipline, research type...
- Best use of time
 - Broad topics can retrieve a large volume of results
 - Focused search, plus snowballing can be more efficient

Snowballing: techniques (1)

- Citation tracking
 - Forward
 - Backward
- Related articles
- Grey literature searching



**Beware of
getting trapped
in a bubble**

Snowballing: techniques (2)

- Citation tracking
 - [Google Scholar](#), [LENS.org](#), [Scopus](#), [Web of Science](#)
- Related articles
 - [Google Scholar](#), [LENS.org](#), [PubMed](#)
- Author linking in databases
- Searching for study IDs
- Author/organizational web-sites

Snowballing: techniques (3)

Grey literature searching

- Web searching
 - [Google](#), [DuckDuckGo](#)
- Specialist resources
 - Conference abstracts – conference web-sites
 - Guidelines – [TRIP](#), [NICE guidance](#)
 - Reports – organizational websites
 - Preprints – [medRxiv](#), [bioRxiv](#), [Europe PMC](#)
 - Theses – [EThOS](#), [Proquest Dissertations & Theses](#)
 - Trial protocols – [ClinicalTrials.gov](#), [WHO ICTRP](#)

Managing and organising references

- Reference management software
 - [Endnote](#) and [RefWorks](#) (OU subscription)
 - [Zotero](#) (Free)
- Review management software
 - [Covidence](#) and [EPPI-Reviewer](#) (Subscription)
 - [Rayyan](#) and [SR-Accelerator](#) (Free)
- [SR Toolbox](#)

Keeping up-to-date

Once you've run your searches you might want to be notified of new research on your topic

- Email alerts
- RSS feeds
- [Journal TOCs](#)
- Social media

Search process: note taking

At some point, you'll write up your review. To report the search accurately keep notes on:

- Search terms used – full search strategy for each database
- Limits applied
- Databases & web-sites searched
- Date of search
- Snowballing methods used

Search process: questions

- Contact us
 - hcl-enquiries@bodleian.ox.ac.uk
- LibGuides
 - [Systematic Reviews](#)
 - [Medical Researchers: Research Resources](#)
- Resource list

