Conducting a review:
How to find literature on a topic?
Why do a literature review?

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

Search, select, evaluate, synthesise, report...
Types of review?

Read more: Booth & Grant, 2009
Search process

- What is your topic of interest?
- What research will help you address that issue?
- Where will you find that research?
- How will you search to find that research?
- 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
  – Web-sites

• Foreground questions
  – Journal articles
  – Preprints
  – Conference abstracts
  – Study protocols
  – Theses/dissertations
  – Reports
  – Official publications
  – Web-sites
Where to search?

- Library catalogue
  - Books, online journals, theses, databases...
- Bibliographic databases
  - Articles
  - Books & chapters, conference abstracts, theses, reports – in some but not all databases
- Online repositories
  - Study protocols & preprints
- Web-sites
  - Anything & “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 web-sites – search or browse
Break
Foreground question: 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
In long-term smokers, can electronic cigarettes be used as an effective smoking cessation technique?
Structured search: search concepts

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

- Population, Patient, Problem
- I(E) Intervention, Exposure
- Comparator, control
- Outcome
- Study design

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

• P Long-term smokers
• I(E) Electronic cigarettes
• C N/A
• O Cessation
• S 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, RCT
Structured search: combining terms

(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: 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: 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: 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 question: How to search?

Structured search

- Keywords for each search concept
- Combine with AND/OR
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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 us of time
  – Broad topics can retrieve a large volume of results
  – Focused search, plus snowballing can be more efficient
Snowballing: techniques

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

Beware of getting trapped in a bubble
Snowballing: techniques

• Citation tracking
  – Google Scholar, LENS.org, Scopus, Web of Science

• Related articles
  – Google Scholar, LENS.org, PubMed

• Sibling studies
  – Author linking in databases
  – Searching for study IDs
  – Author/organizational web-sites
Snowballing: techniques

Grey literature searching
• Web searching
  – Google, DuckDuckGo
• Specialist resources
  – Conference abstracts – conference web-sites
  – Guidelines – TRIP, NICE Evidence search
  – Reports – organizational web-sites
  – Preprints – medRxiv, bioRxiv, Europe PMC
  – Theses – Proquest Dissertations & Theses
  – Trial protocols – clinicaltrials.gov, WHO ICTRP
Managing & organizing references

• Reference management software
  – Endnote & RefWorks (OU subscription)
  – Mendeley & Zotero (Free)

• Review management software
  – Covidence & EPPI-Reviewer (Subscription)
  – Rayyan & 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

- E-mail alerts
- RSS feeds
- Journal TOCs
- Twitter
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

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