LEARNING OBJECTIVES

1. Know where to find more information about scoping review or literature review methodologies

2. Know which sources you need to use for your review

3. Acquire skills to conduct a structured and replicable search strategy

4. Gain tips on how to manage the process.
COMMON KNOWLEDGE SYNTHESIS METHODS

- "A **Systematic Review** attempts to identify, appraise and synthesize all the empirical evidence that meets pre-specified eligibility criteria to answer a given research question.

  Researchers conducting Systematic Reviews use *explicit methods* aimed at minimizing bias, in order to produce more reliable findings that can be used to inform decision making."

  Cochrane Handbook for Systematic Reviews of Interventions: [http://handbook.cochrane.org](http://handbook.cochrane.org)

- Because a systematic review synthesizes evidence (often from randomized controlled trials), there needs to be a critical mass of evidence to draw from. A **scoping review** is better when there is little existing research.

- Systematic reviews can take months. **Rapid review** is an emerging methodology which aims for quicker answers. Downside: less rigorous.

- **Literature reviews** follow less formal and systematic methods but aim to find, evaluate, and summarize the literature on a topic, usually as part of another study or as part of a publication/thesis/article.
RESOURCES

- Systematic Review Methodologies Guide from UBC Library
- Literature Review Guide from UBC Library
- HLWIKI Overview of Scoping Reviews

- Searching Videos & Tips
SYSTEMATIC REVIEW PROCESS

Stage 1: Planning the Review
Step 1 – Forming a review panel
Step 2 – Mapping the field of study
Step 3 – Producing a review protocol

Stage 2: Identifying and evaluating studies
Step 4 – Conducting a systematic search
Step 5 – Evaluating studies

Stage 3: Extracting and synthesizing data
Step 6 – Conducting data extraction
Step 7 – Conducting data synthesis

Stage 4: Reporting
Step 8 – Reporting the findings

Stage 5: Utilizing the findings
Step 9 – Informing research
Step 10 – Informing practice
DEVELOPING A SEARCH STRATEGY
CONCEPTUAL FRAMEWORKS HELP

- Clarify the search topic
- Identify the main concepts
- Develop a range of possible search terms for each concept
- Build a search strategy based on the possible search terms

Most often used framework is PICO

Others: PEO, SPICE, PESICO, SPIDER, ECLIPSE …
EXAMPLE QUESTION

Among people with recurrent pregnancy loss, does counselling or self help improve management of depression?

- **P:** recurrent pregnancy loss
- **I:** CBT, reproductive or genetic counselling, self help interventions, etc.
- **C:**
- **O:** improved management of depression
# MeSH vs. Keywords

<table>
<thead>
<tr>
<th>MeSH/Subject Headings</th>
<th>Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Time delay: Established concepts (Diabetes, Heart Disease)</td>
<td>• Newer concepts (eHealth)</td>
</tr>
<tr>
<td>• Conservative Bias: Core biomedical concepts (diseases, drugs &amp; chemicals, anatomy)</td>
<td>• Boundary-crossing topics (psychosocial and humanities concepts)</td>
</tr>
<tr>
<td>• Traditional parts of medicine (Surgery, Immunology)</td>
<td>• New parts of medicine (Rehabilitative Sciences, Population and Public Health, etc.)</td>
</tr>
<tr>
<td></td>
<td>• New Articles (not yet indexed)*</td>
</tr>
<tr>
<td></td>
<td>• Errors in indexing</td>
</tr>
</tbody>
</table>

*For sensitive searches use a combination of MeSH and keywords*
Tools for Keywords

Phrases: Find a specific phrase (more specific)
• “cultural deprivation”

Proximity: Find words within a X words of each other (more flexible, increases the number of results)
• needle ADJ2 exchange
• Proximity searching is not available in every interface, see help

Truncation: Find alternative word endings
• $ OR * in OvidSP databases will search for multiple word endings
• needle* – will search for needle or needles etc

Wildcards: Find alternative spellings (replaces 0 or 1 character)
• Colo?r
HOW TO COMBINE CONCEPTS (BOOLEAN LOGIC)

Use **OR** to create a large set of synonyms

Use **AND** to find articles containing all three of your concepts

Use **NOT** to remove a known undesired concept or set

**OR** = More (miscarriage OR pregnancy loss OR abortion)

**AND** = Less (pregnancy loss AND depression)

**NOT** = Less (stress NOT oxidative) (Set 1 NOT Set 2)
ADDITIONAL SEARCH TOOLS

Limits
- Eg. population, publication type
- Always apply them at the end if at all
- Can exclude relevant articles such as the newest studies – for thorough searches speak to a librarian

Saving searches & creating alerts
- Save Medline search as “Permanent”
- When your search is finalized, save it again as an “Autoalert” to get updates about new articles published on the topic

Searching other databases
- Start in Medline Ovid because the editing function is very helpful at first!
- Reproduce your search in another database (CINAHL)
  - Find the relevant subject headings for that database
  - Copy and paste the keywords but then adapt them to the new database
    Eg. Recurrent adj3 (miscarriage* OR abortion* OR pregnancy loss*) becomes
    Recurrent N3 (miscarriage* OR abortion* OR pregnancy loss*) in CINAHL
It’s important to search for unpublished literature to help overcome publication bias.

Sources and techniques for expanding your search beyond the published literature are linked from this guide: 
[guides.library.ubc.ca/systematicreviewsearch](guides.library.ubc.ca/systematicreviewsearch)
PRISMA

Preferred reporting of items for systematic reviews and meta-analyses
OTHER TIPS FOR MANAGING THE PROCESS

- Use a **table created in Word** to keep track of search terms and databases you’ve tried, and when.
- Most databases allow you to **save search history** and set up **alerts** for when studies matching your strategy are added to the database.
- Use **Refworks, EndNote**, or other citation management software to store, organize, and deduplicate results.

*Watch for workshops on citation management tools*
THANK YOU!