By the end of the workshop, you will be able to:

• Locate different types of tools, templates, software to support the systematic review process

• Identify and evaluate the features of different systematic review management tools

• Select the tools that will best support your review
1. Review of the systematic review process
2. The Systematic Review (SR) Toolbox
3. Planning and reporting tools
4. Software (with demos)
5. How to find critical appraisal tools
SMH Systematic Review Guide

www.librarysmh.ca
  > Find > Resource Guides
  > Systematic Review Guide

Or at:

https://guides.hsiclt.library.utoronto.ca/SMH/systematic
“A systematic review uses systematic and explicit methods to identify, select, critically appraise, and extract and analyze data from relevant research”

- Cochrane Handbook
1. Review of the SR Process

- QUESTION
- PROTOCOL
- SEARCH
- SCREENING
- APPRAISAL
- SYNTHESIS
- WRITING
Review of the SR Process

Source: Knowledge Translation Program, Li Ka Shing Knowledge Institute, St. Michael's Hospital. Systematic Review and Network Meta-Analysis Process Diagram

https://knowledgetranslation.net/knowledge-syntheses/ks-research/systematic-reviews/
What are some of the **tasks** involved in carrying out a systematic review?

What are some of the **challenges** in carrying out a SR?

Go to [www.menti.com](http://www.menti.com) and use the code: **10 56 59**
The Systematic Review Toolbox

www.systematicreviewtools.com

Activity: Explore & search for tools to support the tasks or processes you described previously
Planning Tools

• Protocols (e.g. PRISMA-P, PROSPERO)
• Project Management/Timetable
Reporting Guidelines

• Read and follow them before you start

• Most commonly used is PRISMA: Preferred Reporting Items for Systematic Reviews and Meta-Analyses
  http://www.prisma-statement.org/
See also The EQUATOR Network (Enhancing the QUAlity and Transparency Of health Research)

https://www.equator-network.org/
Software Tools

• Reference Management
  – e.g. EndNote, Mendeley

• Systematic Review Management & Data Extraction/Analysis
  – e.g. DistillerSR, Review Manager (RevMan), Covidence, EPPI-Reviewer, Rayyan, Colanddr
Software Tools

<table>
<thead>
<tr>
<th>Software name</th>
<th>Setting up the review</th>
<th>Scoping/pilot study</th>
<th>Literature searching</th>
<th>Duplicate checking</th>
<th>Article screening</th>
<th>Data coding</th>
<th>Critical appraisal</th>
<th>Synthesis</th>
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<tbody>
<tr>
<td>CADIMA</td>
<td>Facilitation of question formulation and/or stakeholder engagement</td>
<td>Protocol development, PICO* elements specified</td>
<td>Software integrated with publication databases</td>
<td>Automated marking of duplicates</td>
<td>For study selection</td>
<td>Tagging and extraction to support meta-analyses</td>
<td>Risk of bias assessments</td>
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"Breakdown of the 22 software packages designed to support evidence syntheses, with the functionality to support different stages of the systematic review process".

**Source**: Kohl, C. et al. Online tools supporting the conduct and reporting of systematic reviews and systematic maps: a case study on CADIMA and review of existing tools. Environmental Evidence 7, 8 (2018).
Demo:

- Covidence
  https://www.covidence.org
DistillerSR:

https://www.evidencepartners.com/

Source: https://www.evidencepartners.com/products/distillercer-clinical-evaluation-report-software/
Demo:

- Colandr
  https://colandrarpp.com/
Evaluating software features

- Cost?
- Accessible online?
- Import citations from different file types?
- Duplicate checking?
- Supports double blind screening?
- Can easily upload and screen full text?
- Customizable inclusion/exclusion criteria?
- Can create customizable forms?
- Includes data extraction tools?
- Critical appraisal tools e.g. risk of bias?
- Export results into other software?
How to Find Critical Appraisal Tools

• Also called Quality Assessment

• Use the right appraisal tool for the study design:
  – E.g. The Cochrane Risk of Bias Tool for RCTs
  – E.g. The Meta-analysis Of Observational Studies in Epidemiology (MOOSE) guidelines
How to Find Critical Appraisal Tools

• See “Critical Appraisal Starting Points” on the SMH Systematic Review Guide

• Search the Systematic Review Toolbox
www.librarysmh.ca
> Find > Resource Guides
> Systematic Review Guide

Or at:

https://guides.hsict.library.utoronto.ca/SMH/systematic
Thank you!

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Information Specialist
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Ext 77543