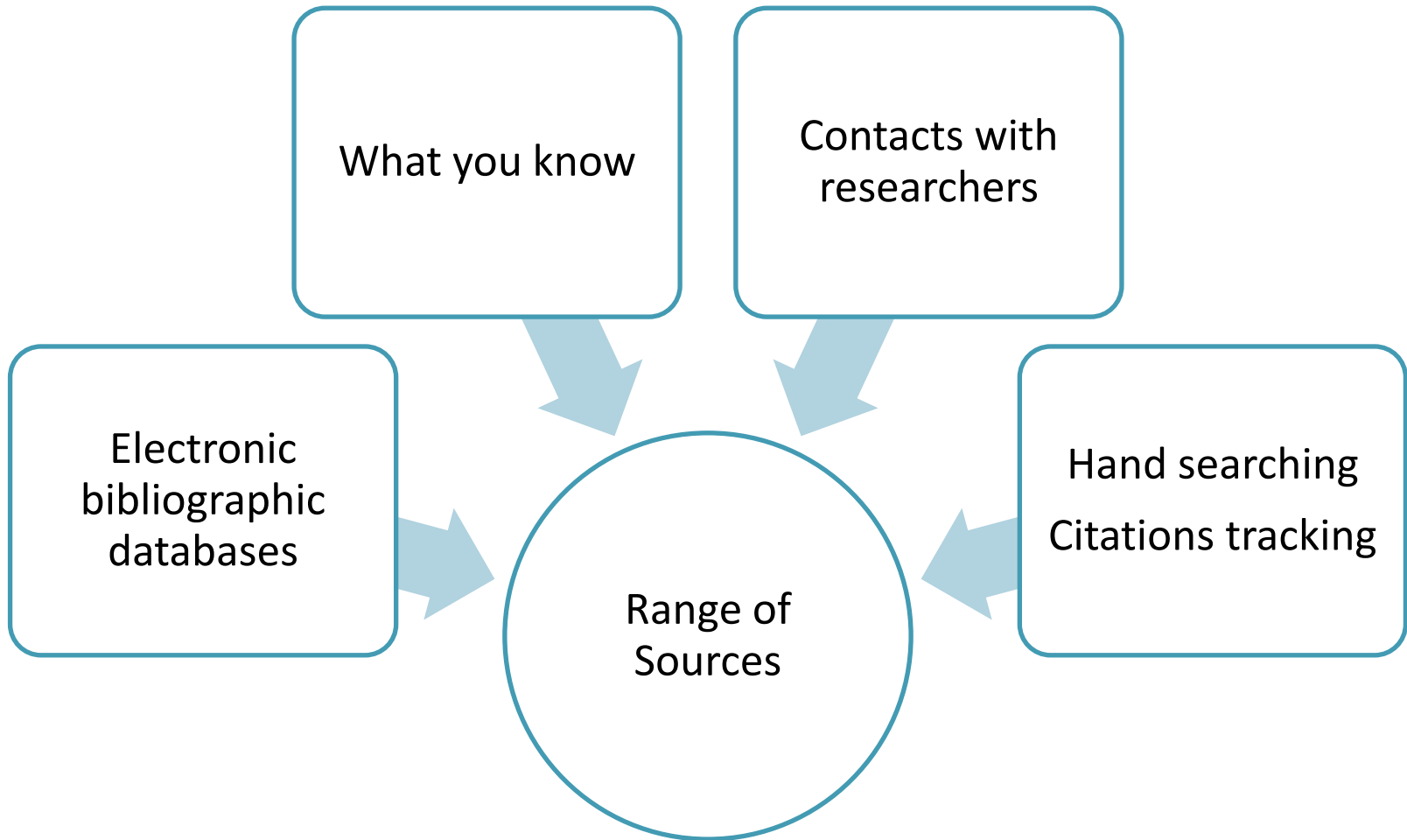


Database Search Tips and Techniques

Sharon Stevens

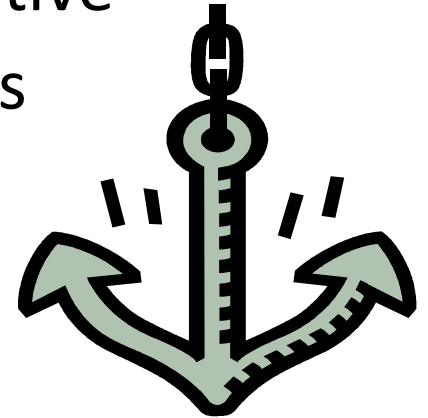
Search Method

Greenhalgh H, T, Peacock R. Effectiveness and efficiency of search methods in systematic reviews of complex evidence: audit of primary sources. *BMJ* 2005 Nov 5;331(7524):1064-5



Search Stages

- Development of a search strategy – iterative
- Choice of search terms and combinations
- Limits – dates, study design, language
- Adapt search in chosen sources
- Adjusting subject headings



Among people who use illegal drugs does the criminalization of drug use influence HIV prevention, treatment or care?

Search Process

- What is the full range of keywords, phrases and subject headings that capture a concept thoroughly?
- How should specific keywords, phrases and subject headings to be combined (AND, OR, NOT, adjacency) to capture discrete concepts logically?

Searching

- Two approaches to searching
 - Keywords
 - Subject Headings



Subject Headings

- Assigned to articles by indexers to describe the content of an article
- A 'preferred term' chosen from synonyms
- Increases relevance

When applying subject headings

- Indexing is at the most specific level
- Explode – helps to gather more terms
- Focus - determines the emphasis of a concept, arbitrary
- Subheadings - determine angle of a concept

Keywords

- Useful when there is no appropriate subject heading, for recent literature or subject
- Indexers make mistakes
- Searches many fields, usually title and abstract
- May retrieve irrelevant items
- Need to include synonyms, variant spellings (UK/US), and variant word endings
- Subject headings scope notes provide useful synonyms

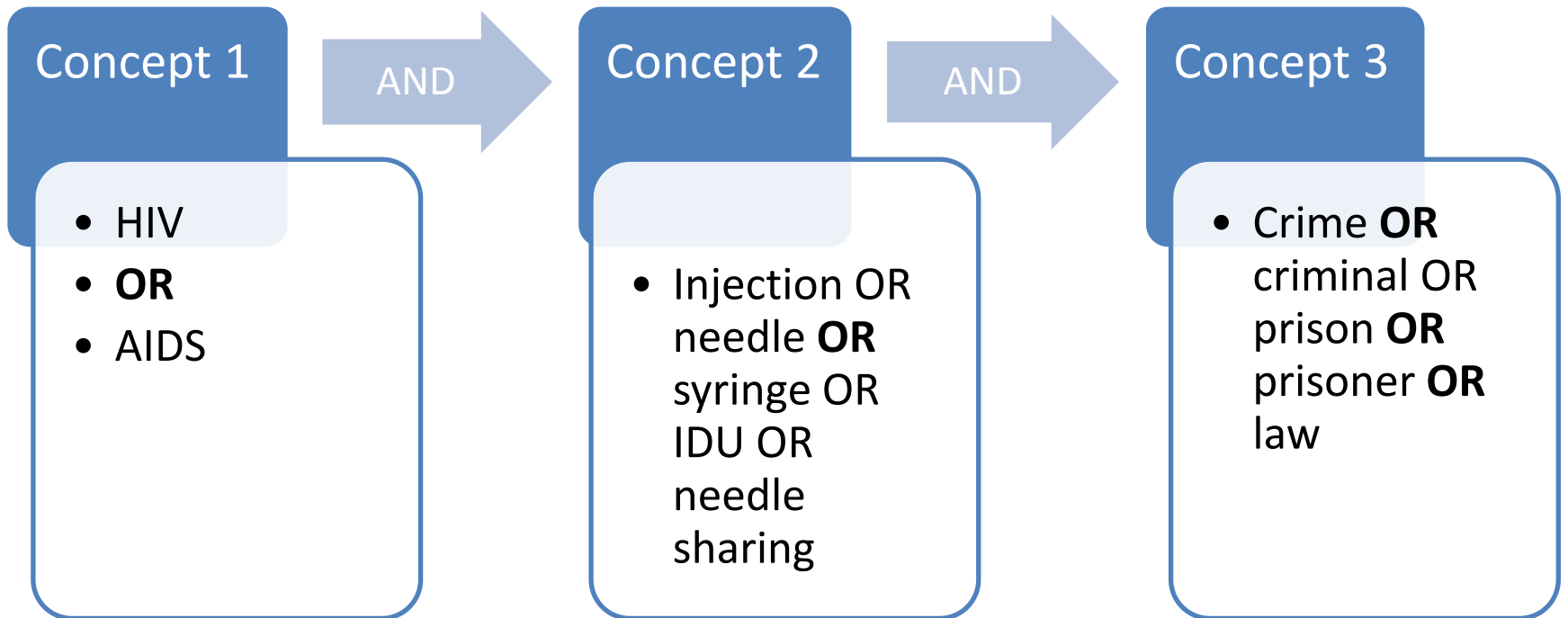
Tools for Keywords

- **Truncation** – used to search word endings
 - Needle* OR syringe*
- **Wildcard** - Substitute one or more characters to find alternative spellings
 - Colo*r

Tools for Keywords

- **Proximity** - find words within a specified numbers of words from each other
 - needle* OR syringe* adj2 shar*

Putting it together – combining concepts



Filters

- Search filters – pre-formulated, pre-tested strategies, available for most experimental designs
- Available through variety of sources, for example:
Centre for Reviews and Dissemination:
<http://www.york.ac.uk/inst/crd/intertasc/index.htm>
- SIGN: <http://www.sign.ac.uk/methodology/filters.html#obs>
- McMaster University :
- http://hiru.mcmaster.ca/hiru/HIRU_Hedges_MEDLINE_Strategies.aspx

Filter Example (SIGN) - Observational Studies Filter

- Medline
- 1 Epidemiologic studies/
- 2 Exp case control studies/
- 3 Exp cohort studies/
- 4 Case control.tw.
- 5 (cohort adj (study or studies)).tw.
- 6 Cohort analy\$.tw.
- 7 (Follow up adj (study or studies)).tw.
- 8 (observational adj (study or studies)).tw.
- 9 Longitudinal.tw.
- 10 Retrospective.tw.
- 11 Cross sectional.tw.
- 12 Cross-sectional studies/
- 13 Or/1-12

Adapting your Search – Subject headings

Medline	Embase	PsycINFO	Sociological Abstracts
Injections	Injection	Injections	Drug Injection Reserved for usages referring to the injection by needle of illegal drugs (eg, heroin, cocaine). Added, 1995.
Needles	Needle	No subject heading	No subject heading
Needle Exchange Programme (1995)	Preventive Health Service Used for: diagnostic services immunization programs mobile health units needle-exchange programs preventive health services preventive service	Needle exchange Programme (2001)	Needle Exchange Programme (2003)

Adapting your Search

- Become familiar with interface: Saving, print, edit and export to citation management system
 - Ask your librarian:
<http://directory.library.ubc.ca/subjectlibrarians/>
 - Workshops: <http://elred.library.ubc.ca/libs/>
 - Online tutorials/guides:
<http://www.library.ubc.ca/life/instruction/>