



NCC Summer Workshop

Wednesday July 5, 2006

Literature Searching & Retrieving Tools & Methods

**Presented by : OPHLA
Ontario Public Health Libraries
Association**





Objectives:

a.m.

- ❧ **Where to find evidence-based information sources**
- ❧ **How to use various information sources**
- ❧ **How to develop search questions**

p.m.

- ❧ **Work in small groups to find information to answer your research question**



Evidence-based Public Health

“Evidence-based public health practice is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of communities and populations in the domain of health protection, disease prevention, health promotion, and health maintenance and improvement.”

Jenicek M. et al 2003



Evidence-based Public Health

To practice evidence-based decision-making requires organizations to have:

- ∞ Systems for finding and acquiring information**
- ∞ Professionals skilled in searching, evaluating, storing and disseminating information**
- ∞ Knowledge workers and decision makers skilled in appraising and utilizing the information to inform the decision-making process**



In order to access information one must be able to:

- ⌚ **Formulate your specific research question**
 - **PICO**
- ⌚ **Be aware of what sources are available to answer your information needs**
- ⌚ **Be knowledgeable on how to use the sources**
- ⌚ **Evaluate the information you retrieve**



Types of Information Sources

∞ **Books**

∞ **Journals**

∞ **Grey Literature**

∞ **Websites**

∞ **Experts in the field**

- **Invisible College**



Books

Books as an information source

∞ Types of Books:

- **General Textbooks**
- **Speciality Textbooks**

∞ Where to search for books

- **Online Public Access Catalogues (OPACs)**
- **Bibliographic databases**
- **Internet sites**



Journals

⌚ **Important source for up-to-date information**

⌚ **Different types of journals**

- Popular Magazines
- General Interest/Trade journals
- Scholarly Journals

⌚ **Journal Formats**

- Printed vs. On-line
- Free vs. paid



Searching for Journal Articles

∞ Bibliographic Databases

- High Quality
- Citations, abstracts, and some full text
- Free vs Fee
- Many types of Databases
- Examples
 - PubMed , Medline , CINAHL, ERIC, PsycINFO, Embase

∞ Handsearching

∞ Internet

Grey Literature

Ω ...refers to 'Information produced on all levels of government, academia, business and industry in electronic and print formats not controlled by commercial publishing *i.e. where publishing is not the primary activity of the producing body.*'

Ω Source:

ICGL Luxembourg, 1997 - Expanded in New York, 2004



Grey Literature

Examples of Grey Literature include, but are not limited to:

- ∩ **Reports** (pre-prints, preliminary progress and advanced reports, technical reports, statistical reports, memoranda, state-of-the art reports, market research reports, etc.),
- ∩ **Theses**
- ∩ **Conference proceedings**
- ∩ **Technical specifications and standards**
- ∩ **Government publications**
- ∩ **Bibliographies**
- ∩ **Technical and commercial documentation**



Grey Literature . . . continued

Ω Examples of Grey Literature

- On-line registries of effective evidence
 - [PHRED reviews on effectiveness of public health practice](#)
 - [Health-Evidence.ca](#)
- Websites
- Agency/Organizational reports
- Statistical reports
- Open access publishing (ejournals, ebooks etc)
- Newsletters
- Blogs, email, webcasts, podcasts etc



Grey Literature Sources

- **Agency/Organizational print reports**
- **Catalogues & Databases**
- **Libraries**
- **Institutional holdings**
- **Open access publishing** (ejournals, ebooks etc)
- **Experts in the field**
- **Internet**
 - **Repositories, Directories, Gateways, Portals, Websites**



Web Research Tools

∩ **Search Engines**

- **Google/Google Scholar/Scirus/MAMMA**

∩ **Portals/Directories/Repositories**

∩ **Customized alerts**

∩ **Invisible Web**

∩ **Blog sites**

∩ **Custom Crawlers**

Internet ...Search Tips

- Ω **Increase : Keywords**
 - "coffee" vs "roasted Arabica coffee"
- Ω **Phrases – use quotation marks**
 - "long haired cats"
- Ω **Use Basic Math**
 - "tom ford" -motors
- Ω **Wildcards**
 - *,:, and ? Type: nurs*
- Ω **Synonyms**
 - ~children
- Ω **Word sequence**
 - Ontario breast screening guidelines Ontario
- Ω **Searching within specific websites**
 - Site:who.int



Evaluating Websites

- ∩ **Accuracy**
- ∩ **Authority**
- ∩ **Objectivity**
- ∩ **Currency**
- ∩ **Coverage**

**A definitive guide for evaluating websites can be found at
www.discern.org.uk**



Experts in the Field

Ω Experts in the Field

- **Have in-depth knowledge of subject matter**
- **Are aware of grey literature sources**
- **Are up-to-date on new research that is being conducted in their field through sharing of information with other researchers**



Questions ?



Steps in conducting a literature search

- ∩ **Define your question**
- ∩ **Identify your sources**
- ∩ **Develop your search strategy**
 - **Test your strategy**
 - **Modify your search**
- ∩ **Run your search**
- ∩ **Manage your results**
- ∩ **Quality assess your results**



Define your question

- ⌚ **Decide what is your information need and formulate it into a question**
- ⌚ **Use PICO (Population, Intervention, Comparison, Outcome) to help you develop your question**



Defining your question..con't

⌚ **What is the effectiveness of school-based interventions for reducing adolescent risk behaviour?**

Population – Adolescents

Intervention – School-based programs

Comparison –

Outcome – Reducing risk behaviour



Identify your sources

- ⌚ **Bibliographic Databases**
- ⌚ **Online Catalogues**
- ⌚ **Grey Literature**
- ⌚ **Internet Sources**
- ⌚ **Experts in the field**

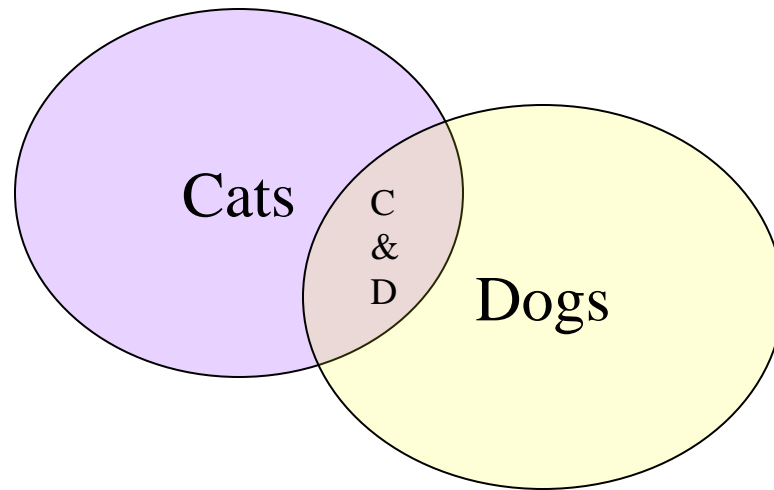
Develop your search strategy format

Boolean Logic

And

Or

Not





Arrange your key concepts

Effectiveness

School-based

Interventions

Reduce

Adolescent

Risk Behaviour



Test your search strategy

- ⌚ **Run the search using your key concepts**
- ⌚ **Limit your results to the most recent articles**
- ⌚ **Look for relevant articles**
- ⌚ **Select COMPLETE REFERENCE to check**
 - **MeSH subject headings**
 - **Keywords in title and abstract**
- ⌚ **FIND SIMILAR**



Modify your search strategy

∞ Use limits

- Type of studies, Years, Languages, Age groups, Settings

∞ Check truncation

- Program\$ - includes program, programme, programs, programmes, programming etc.

∞ Check spellings

- behavioural vs behavioral

Develop your final strategy

Search Strategy : Adolescent Risk Review 1987-2006

Medline, CINAHL, Embase, PsycInfo, Biosis, Sociological Abstracts, Eric, EBM Databases

Review	Effectiveness	School	Interventions	Reduce	Adolescent	Risk Behaviour
Review Meta analysis Metanalysis Metaanalysis pooled	Effectiveness Efficacy Evidence Evaluation Impact Outcome	School	Consumer Community Health education Health promotion Program Education Peer Intervention Strategy Outreach Curriculum Project Advocacy Professional Volunteer	Prevention Reduction Decrease Change Decline Drop	Adolescent Teen Youth	Tobacco Smoking Alcohol Drug Substance Sex Delinquency Risk factor Risk behavior Risk taking Violence Bullying Suicide Self harm Emotional Behavioral Behavioural Mental health



Managing Research Findings

Reference management software includes programs such as EndNote, Reference Manager, and ProCite.

Most databases will allow you to export your results into one of these programs.



⌚ **Thank you to OVID Technologies who has provided us with training access to their databases which we will be using for demonstration today**

⌚ **Free access is available to the workshop participants until July 23 2006**

- **Login: ontrain**
- **Password: teachme**