Grey Matters!
Identifying grey literature for health technology assessments and systematic reviews

HTAi 2011 Workshop

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Overview of Workshop

I. Introduction & background

II. Presentation objectives

III. Value of grey literature

   12:30 Lunch– 1 hr, back at 1:30

IV. Taming grey literature searching
(manageable, transparent and reproducible)

V. My top 10 grey literature sites

VI. Recap
Introduction & Background
CADTH

CADTH is the Canadian Agency for Drugs and Technologies in Health, a national body that provides Canada’s federal, provincial, and territorial health care decision makers with credible, impartial advice and evidence-based information about the effectiveness of drugs and other health technologies.

www.cadth.ca
What is grey literature? (quick refresher)

“Information produced on all levels of government, academics, 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.”


Grey literature for the purposes of this presentation

Anything identified outside of the major commercially owned biomedical bibliographic databases such as PubMed/Medline, Embase, CINAHL, etc.

- may or may not include commercially published materials
- includes information retrieved from evidence based databases (i.e. TRIP, DARE, etc.)
Grey Literature Challenges

Can grey literature be valid, appropriate material to use as evidence?
More Grey Literature Challenges!

- Buried in Deep Web (cannot always Google!)
- Copious
- Time consuming
- Difficult to reproduce
- Inconsistent language, no subject indexing
- No one stop shop to search!
- Not always available online (internal docs)
3 Goals

1. Demonstrate the value of grey literature for health technology assessments and systematic reviews

2. Explain how to make grey literature searching as manageable, transparent and reproducible as possible

3. Share my top ten grey literature sites
Value of Grey Literature

Why bother?
Why Bother with Grey Literature?

Information Specialist’s Job when searching for HTAs, systematic reviews, meta analyses:

Ensure researchers have all the available evidence on a topic

- failure to retrieve and analyze relevant materials can seriously compromise the quality of reports
- this presentation will show grey literature searching is crucial to ensuring that all the evidence is captured
Why Bother with Grey Literature?

Reason #1:

Health technology assessment (HTA) reports are peer reviewed, typically of high quality and very useful to health-care decision makers

but.....

HTAs are rarely indexed in PubMed or any other traditional bibliographic database!
Why Bother with Grey Literature?

Reason #2:

Not all health topics are well covered in traditional health literature.

Ex:

- Health policy
- Alternative and complementary medicine
- Rare diseases
Why Bother with Grey Literature?

Reason #3:

Current Information
Why Bother with Grey Literature?

Reason #4: Avoid Publication Bias
Why Bother with Grey Literature?

**Reason #5:**

**Complete**

- Full reports vs. journal articles
  - A summary of a report or trial may be recorded in a journal article, but the full report may be available elsewhere in the grey literature
Why Bother with Grey Literature?

Reason #6:

Another way of finding articles that were missed in the original database search due to:

- poor or no indexing
- inconsistent language
- incomplete search strategy
Why Bother with Grey Literature?

Reason #7:

Exponential increase of electronic publishing and open access journals

- Much of this literature is not indexed in traditional databases (yet)
- Many open access journals are peer reviewed
Reason #8:

Because the evidence says it is useful!

“Unpublished trials contribute about 20% of the weight in individual meta-analysis.”


“56% of Cochrane reviews included studies with grey information.... Unpublished information and conference abstracts were the major sources of this information and make an important contribution to the content - both qualitative and quantitative - of Cochrane reviews”

Why Bother with Grey Literature?

Reason #9:

Because they say so!

According to Cochrane Handbook:

“Systematic reviews of interventions require a thorough, objective and reproducible search of a range of sources to identify as many relevant studies as possible (within resource limits). This is a major factor in distinguishing systematic reviews from traditional narrative reviews and helps to minimize bias and therefore assist in achieving reliable estimates of effects.”

Reason #9 cont.:

Because they say so continued!

Agency for Healthcare Research and Quality (AHRQ):


Institute of Medicine (IOM):

Taming grey literature

searching
Taming Grey Literature

Finding the best quality/most relevant grey literature for the least amount of time and effort while documenting search in a reproducible and transparent (as possible) manner
Taming Grey Literature

Tip #1:

Establish limits and boundaries up front and reporting in the methods!

- Language(s)?
- Unpublished studies?
- Date range?
- Post marketing safety data?
- Geographic area?
- Economic studies?
- Guidelines?
- HTAs/SRs/MAs?
- Study types (i.e. just RCTs?)
- Statistics?
Taming Grey Literature

Tip #2:

Use grey literature search checklists organized by study/information type

Ex:

- HTAs, Guidelines, Regulatory information, Trial registries, Health economic studies, etc.
Taming Grey Literature

Tip #2: checklist example

Grey Matters:
a practical tool for evidence-based searching

http://www.cadth.ca/resources/grey-matters/
Taming Grey Literature

University of British Columbia. Therapeutics Initiative: Evidenced-Based Drug Therapy
http://www.bi.ubc.ca/DrugAssessments
Click on “Therapeutic letters” in the menu on the left for more information
[Languages: English]
Notes: 1 document retrieved

New Zealand
✔
Christchurch School of Medicine and Health Sciences. New Zealand Health Technology Assessment (NZHTA)
http://nzhta.chmrcds.ac.nz/
Contains reports dated from 1997-June 2007, nothing new is being added
[No longer active as of June 2007]
[Languages: English]
Notes: no desired information

United Kingdom
✔
National Horizon Scanning Centre. Technology Briefings (NHSC)
http://www.pcph.bham.ac.uk/publichealth/horizon/outputs/technology.shtml
[Languages: English]
Notes: no desired information

✔
National Institute for Clinical Excellence. NHS National Institute for Clinical Excellence (NICE)
http://www.nice.org.uk/
Search NICE or NHS Evidence using upper right hand search box.
[CDR: Major International ITTA. ITIS--search by Google federated search under ITTA agency.]
[Languages: English]
Notes: no uniquely retrieved results
Tip #3: If your organization requires many different types of grey literature checklists for different products (i.e. Rapid response, HTA or drug vs device reviews) may wish to consider a database to simplify checklist maintenance.
Tip #4:

Consider creating/using custom Google search engines to speed up grey literature search process and for grey literature updates (instead of alerts!)

Example of Canadian HTA producer customized search:
http://www.google.com/cse/home?cx=006602048900252416398:sju5c9cfyea&hl=en
Tip #5: Beware of Search Engines!

Establish limits and guidelines to help manage ‘search engine’ searching
My Top 10 Greylit sites!
Ten Top Sites Overview

Site #1: Centre for Reviews and Dissemination (CRD) & Cochrane Library

Site #2: National Guideline Clearinghouse

Site #3: CMA Infobase: Clinical Practice Guidelines

Site #4: TRIP Database

Site #5: National Institute for Clinical Excellence (NICE)

Site #6: NIHR Health Technology Assessment Programme

Site #7: Agency for Healthcare Research and Quality (AHRQ)

Site #8: Australia and New Zealand horizon scanning network (ANZHSN)

Site #9: Health Devices Gold (ECRI Institute)

Site #10: Canadian Agency for Drugs and Technologies in Health (CADTH)
Top Greylit Site #2 – National Guideline Clearinghouse (NGC)

CMA Infobase: Clinical Practice Guidelines (CPGs)

Find a CPG

Search Tips  Browse by

CMA Infobase: Clinical Practice Guidelines (CPGs)

New / Updated CPGs

- Canadian best practice recommendations for stroke care (updated 2010)
- Standardized approaches to the investigation of syncope: Canadian Cardiovascular Society position paper
- Overweight and obese adults - Diagnosis and management
- Provincial small cell lung cancer treatment guidelines

TOP 10 Most Accessed CPGs

- A list of the 10 most frequently viewed clinical practice guidelines in the CMA Infobase during the past 30 days.
- 2011 CHEP recommendations for the management of hypertension
- Canadian ADHD practice guidelines, Third Edition
- Canadian best practice recommendations for stroke care (updated 2010)

Research Resources

A list of useful resources for practice guideline developers and researchers

- Guideline Development
- Guideline Implementation

Submit a CPG

You can submit a guideline for potential inclusion in the CMA Infobase. Check out the inclusion criteria.

Handbook on CPGs

http://www.cma.ca/index.php/ci_id/54316/la_id/1.htm
Top Greylit Site #4 – Trip Database

- Bariatric surgery for non-alcoholic steatohepatitis in obese patients
- Bariatric Surgery in Women of Reproductive Age: Special Concerns for Pregnancy
- The clinical effectiveness and cost-effectiveness of bariatric (weight loss) surgery for obesity: a systematic review and economic evaluation
- Bariatric surgery and pregnancy.
- The clinical effectiveness and cost-effectiveness of bariatric (weight loss) surgery for obesity: a systematic review and economic evaluation

http://www.tripdatabase.com/index.html
Welcome to the National Institute for Health and Clinical Excellence

NICE is an independent organisation responsible for providing national guidance on promoting good health and preventing and treating ill health.

NICE Pathways

View our new online tool for health and social care professionals, providing fast access to NICE guidance, quality standards and associated products.

Visually representing everything NICE has to say on a particular topic, NICE Pathways enables you to see at a glance all of our recommendations on a specific clinical or health topic.

NICE cost-saving support

NICE has identified 23 sets of recommendations that, if fully implemented, could help the NHS to save millions of pounds, whilst maintaining or improving the quality of care.

Latest news

Government accepts changes to the Health and Social Care Bill
16 Jun 2011

GP's following NICE LUTS guidance
13 Jun 2011

See all latest news

http://www.nice.org.uk/
NIHR Health Technology Assessment programme

Welcome

The HTA programme is part of the National Institute for Health Research (NIHR). It produces independent research information about the effectiveness, costs and broader impact of healthcare treatments and tests for those who plan, provide or receive care in the NHS.

Our research

Looking for research?

Browse published HTA research, research in progress and investigate HTA research priorities

Managing my project

Get information to help you, as a researcher, in the active, editorial review and publishing phase of your research process

Working with us

Looking for funding?

Find out about current HTA funding opportunities and how to apply.

Get involved

Find out how you can work with the HTA programme

http://www.hta.ac.uk/index.shtml
Evidence-based Practice

Evidence-based Practice Program

EPC Program Overview
Participating EPCs
Topic Nomination and Selection
Resource Material

Continuing Education Opportunities

For Effective Health Care Program

EPC Evidence Reports

- Topics in Progress
- Completed Reports
  - Clinical / Health Care Services
  - Topic Index: A-Z
  - List of Reports by Number
  - Archived Reports
  - Related Issues

Completed Reports

Clinical
- Cancer and Blood Disorders
- Complementary and Alternative Care
- Dietary Supplements

http://www.ahrq.gov/clinic/techix.htm
http://www.ahrq.gov/clinic/epcix.htm
http://effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports
Australia and New Zealand Horizon Scanning Network - Technologies Assessed

- **Horizon Scanning Reports**
  Horizon scanning reports are more comprehensive assessments and are conducted if a technology has a significant impact and/or rapid uptake has, or is likely to occur. The reports present an overview of existing evidence, including a preliminary statement on clinical need, safety, effectiveness, cost-effectiveness and ethical considerations.

- **Prioritising Summaries**
  Prioritising summaries provide a snapshot of information on what is known about a new or emerging technology. Prioritising summary updates are conducted if the committee decides that a prioritising summary should be monitored for new research and evidence within a six to 12 month timeframe.

- **Emerging Technology Bulletins**
  Emerging technology bulletins provide an overview of the rate of progress and development of a technology or group of technologies that are predicted to have a clinical impact over the next five to ten years in Australia and internationally.

It is important to note that horizon scanning reports and emerging technology bulletins do not constitute a full health technology assessment as they are based on a limited literature search and are not a definitive statement on the safety, effectiveness or cost-effectiveness of the particular health technology.

Reports presented on the Horizon Scanning website are based on information available at the time of research and cannot be expected to cover any developments arising from subsequent improvements to health technologies. The reports are based on a limited literature searches and are not a definitive statement on the safety, effectiveness or cost-effectiveness of the health technology covered. The Commonwealth does not guarantee the accuracy, currency or completeness of the information in the reports presented on this site. The reports are not intended to be used as medical advice and are not intended to be used to diagnose, treat, cure or prevent any disease, nor should they be used for therapeutic purposes or as a substitute for a health professional’s advice. The Commonwealth does not accept any liability for any injury, loss or damage incurred by use of or reliance on the information contained within these reports.

Top Greylit Site #9 – Health Devices Gold (ECRI Institute)

https://www.ecri.org

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Additional results may be available in products to which you do not currently subscribe. Would you like to see those results and learn more about ECRI Institute's additional subscription products?
Recap
Recap

Grey literature valuable for HTA/systematic review searching because:

- valuable health technology assessment reports (HTAs) rarely indexed in PubMed or any other bibliographic database.
- it is current
- it helps prevent publication bias
- it is a good way to double check database results
- helps find information on topics not well indexed
- helps to find information from open access journals and electronic sources that are not necessarily indexed
- the evidence suggests that it is valuable!
Recap

Make grey literature searching as manageable, transparent and reproducible as possible by:

• establishing search limits and boundaries up front and reporting them in the methods

• using grey literature search checklists organized by study/information type (consider using database to manage checklists if using multiple versions!)

• considering custom Google search engines to speed up grey literature searching

• establish limits and guidelines to help manage search engine searching
Recap

Be picky about the sites you use for grey literature searching:

• Search sites with the most credible evidence-based information

• Do not search sites that contain information that is duplicated in other sites searched

• Search sites that are of the most value to your audience

• Search only sites that reflect the type of information required as reported in the research questions/Protocol
Questions?
For More Information

CADTH web site:  www.cadth.ca