

How to search for evidence of intervention effectiveness and cost-effectiveness

1. The research question and inclusion criteria

First you need to specify your research question. For each question try to specify the following:

- Population:* May include populations, communities or individuals. May be limited by age, gender or other characteristics, e.g. disadvantage, Aboriginal etc.
- Interventions:* Can be a specific intervention (e.g. immunisation for measles), general (e.g. mass media interventions to prevent smoking), a type of approach (e.g. peer-led strategies for changing behaviour) or based on a particular theory.
- Comparisons:* May be no intervention, another intervention or standard care/practice.
- Outcomes:* Can be a disease (e.g. diabetes), change in behaviour or risk factor (e.g. quantity of physical activity, obesity), quality of life, cost-effectiveness or a combination. Can also include process measures (e.g. reach) and intermediate measures (e.g. attitudes, knowledge).
- Study types:* Systematic reviews (or meta-analyses) of all relevant studies; controlled trials or comparative studies; economic evaluations (including cost-effectiveness, cost-benefit and cost-utility analyses).

This will help you to define your research question and will constitute your inclusion criteria for studies. You may also specify a cut-off or range of publication dates to limit the search.

2. Search strategy and sources of studies

How you search and what sources you search will depend on how much time you have and the resources available to you (money, people and skills - such as literature searching and critical appraisal skills). You should also record the date of your search. We recommend that you start first with systematic reviews of all relevant studies. Start with these sources:

Systematic reviews

- Centre for Reviews and Dissemination databases: particularly the Database of Abstracts of Reviews of Effectiveness (DARE) and the Health Technology Assessment (HTA) Database (both found at: (<http://www.crd.york.ac.uk/crdweb/>)).

The nice thing about these databases is that they confirm that the review is actually a systematic review, and give a summary and critical appraisal of the review. They will give you the reference for the review itself (and possibly a web link) but you will need to track down the actual review yourself. The DARE database also includes Cochrane Collaboration systematic reviews.

- The Cochrane Library: <http://www3.interscience.wiley.com/cgi-bin/mrwhome/106568753/HOME>;

This is the direct source for Cochrane Collaboration systematic reviews.

- The Campbell Collaboration (<http://www.campbellcollaboration.org/frontend.aspx>)

This is a source of systematic reviews of social science research. The Campbell Collaboration is closely related to the Cochrane Collaboration. Campbell reviews provide high quality evidence of "what works" to meet the needs of service providers, policy makers, educators and their students, professional researchers, and the general public. There are less than 40 reviews in this database so far but it's worth a look.

- Effective Public Health Practice Project (<http://old.hamilton.ca/phcs/ephpp/ReviewsPortal.asp>)
- Evidence for Policy and Practice Information and Coordinating Centre (EPPI-Centre) (<http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=61>)
- Health-evidence Canada (<http://health-evidence.ca/articles/search>)
- National Institute for Health and Clinical Excellence (<http://www.nice.org.uk/search/advsearch.jsp?guidancesearch=1>)
- Guide to Community Preventive Services, Centers for Disease Control and Prevention (<http://www.thecommunityguide.org/index.html>)

If sound, relevant material of this type is identified you may choose to stop the search. If none is found the next step is to search for properly designed randomised controlled trials or controlled trials.

Controlled trials

A good source for controlled trials that doesn't require extensive searching and expertise in specifying search strategies is the Cochrane Central Register of Controlled Trials (CENTRAL). Trials included here are taken from bibliographic databases (notably [MEDLINE](#) and [EMBASE](#)), and other published and unpublished sources. It is found at: <http://www3.interscience.wiley.com/cgi-bin/mrwhome/106568753/HOME>.

Economic Evaluations

These include cost-effectiveness, cost-utility (e.g. \$ per QALY or \$ per DALY) and cost-benefit. This type of information adds to the effectiveness evidence. But note that if an intervention is not effective it is very unlikely to be cost-effective. Also note that economic evaluations are very context specific because costs vary between countries (due to differences in health care systems) and are also very dependent on the methodology used including the reference year, study perspective (e.g. societal vs health system perspective), discounting rate, time horizon. Thus, results are rarely generalisable to other countries or contexts. Comparing economic evaluations from different countries and different contexts is not advisable.

Try these sources:

- Centre for Reviews and Dissemination database: The NHS Economic Evaluation Database (found at: (<http://www.crd.york.ac.uk/crdweb/>)).

This database will confirm that the study is actually an economic evaluation and not just a study of costs or valuation of outcomes, and gives a summary and critical appraisal of the study. It will give you the reference for the study itself (and possibly a web link) but you will need to track down the actual review yourself.

- Paediatric Economic Database Evaluation (PEDE)
<http://pede.bioinfo.sickkids.on.ca/pede/index.jsp>

This database only includes economic evaluations. Cost analyses, cost descriptions or cost of illness studies are not included. Only basic information about the study is included. A reference to the original study is included but you will need to track it down yourself.

3. What next?

If you haven't found what you need it is time to rethink. Systematic searches (and reporting) of the primary research literature (including the grey literature such as government reports) require particular expertise and you should consider seeking expert advice.

4. Who else can help?

The librarians in the Department of Human Services library can help with searches. They can be contacted at:

Level 27, 50 Lonsdale Street,
Melbourne 3000,
phone 9096 7843 fax 9096 9100
email: [Library Reference-Desk](mailto:Library_Reference-Desk)

For further information contact the:

Strategy and Support Section
Chronic Disease Prevention Unit
Public Health Branch
Department of Human Services, Victoria

Contacts:

Drs Michelle Haby or Shelley Bowen
Phone: 9096 5829 or 9096 5241
FAX: 9096 9165
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