

# PRACTICAL SUPPORT FOR EVIDENCE-BASED ACTIVITIES

This leaflet describes ways to search for evidence, and identifies a number of New Zealand organisations that can provide practical advice and can be contracted to undertake evidence-based research.

## Finding the Evidence

### Literature Sources

The biomedical literature is huge and growing daily with a wide range of paper journals, electronic publications, abstracts, posters and books available. There is no single source or electronic search that will yield all the required evidence. A search for evidence should begin with a 'search strategy'. The strategy should incorporate a range of sources including several relevant electronic databases, abstracts of relevant scientific meetings, printed bibliographies/reference lists, together with direct contact with researchers and expert practitioners in the field is more likely to locate all of the relevant evidence.

### Electronic Databases

- 1 MEDLINE** encompasses information from Index Medicus, Index to Dental Literature, and International Nursing, as well as other sources of coverage in the areas of allied health, biological and physical sciences, humanities and information science as they relate to medicine and health care, communication disorders, population biology, and reproductive biology. MEDLINE contains bibliographic citations and author abstracts from over 4,000 journals published in the United States and in 70 foreign countries. It has 11 million records dating back to 1966. Abstracts are included for about 67% of the records.
- 2 Cochrane Library** – available on CD or Internet by subscription ([www.update-software.com/cochrane/cochrane-frame.html](http://www.update-software.com/cochrane/cochrane-frame.html)); some parts are available free on the Internet. New Zealand doctors can get free access to the library by registering with [www.aus.doctors.net](http://www.aus.doctors.net) quoting their NZMC number. It includes the following major databases that are searched simultaneously:
  - Cochrane Database of Systematic Reviews (CDSR) – contains completed reviews and protocols of reviews in progress on interventions (therapies) and preventive strategies across all areas of healthcare.
  - Cochrane Controlled Trials Register (CCTR) - contains 330,000 references to randomised controlled trials of interventions. It includes references located by hand searching, conference abstracts, letters as well as references listed in other databases.
  - Database of Reviews of Effectiveness (DARE) is prepared by the NHS Centre for Reviews and Dissemination at the University of York, England. This database provides information on non-Cochrane published reviews of the effects of health care.
  - The NHS Economic Evaluation Database is a companion to the CRD Database of Abstracts of Reviews of Effectiveness (DARE). It is a register of published economic evaluations of health care interventions.
  - Health Technology Assessment Database reviews of various topics not restricted to therapy/interventions.
- 3 EMBASE**, the Excerpta Medica database, produced by Elsevier Science, is a major biomedical and pharmaceutical database indexing over 3,500 international journals in the following fields: drug research, pharmacology, pharmaceuticals, toxicology, clinical and experimental human medicine, health policy and management, public health, occupational health, environmental health, drug dependence and abuse, psychiatry, forensic medicine, and biomedical engineering/instrumentation. There is selective coverage for nursing, dentistry, veterinary medicine, psychology, and alternative medicine.
- 4 CINAHL** (Cumulative Index to Nursing and Allied Health) indexes virtually all English language publications in the field - more than 1200 journals. The database also provides access to healthcare books, nursing dissertations, selected conference proceedings, standards of professional practice, educational software and audiovisual materials in nursing.
- 5 PsycINFO** covers the professional and academic literature in psychology and related disciplines including medicine, psychiatry, nursing, sociology, education, pharmacology, physiology, linguistics, and other areas. Coverage is worldwide, and includes references and abstracts to over 1300 journals (and in PsycINFO, to dissertations) in more than 30 languages, and to book chapters and books in the English language. Over 50,000 references are added annually.
- 6 ERIC** (Education Resources Information Center) is presently the largest education database in the world. ERIC contains over one million citations covering research documents, journal articles, technical reports, program descriptions and evaluations, and curricular materials in the field of education.



## Internet

There are numerous databases and sites on the internet containing information and reviews of research. There is wide variation in the quality of material and scientific rigour of the evaluation. Guidelines produced in New Zealand are available through the website of the New Zealand Guidelines Group ([www.nzgg.org.nz](http://www.nzgg.org.nz)). This website also contains links to a number of other useful websites for those interested in evidence based health care.

Free electronic copies of guidelines produced in other countries can be accessed through NZGG and health technology assessment websites, for example:

- Canadian Medical Association – CMA Infobase ([www.cma.ca/cpgs/index.asp](http://www.cma.ca/cpgs/index.asp))
- National Guideline Clearing House (structured abstracts of guidelines only at [www.guidelines.gov](http://www.guidelines.gov))
- Scottish Intercollegiate Guidelines Network (SIGN) ([www.show.scot.nhs.uk/sign/guidelines/index.html](http://www.show.scot.nhs.uk/sign/guidelines/index.html))
- US guidelines can be accessed through Health Services Technology Assessment Text (HSTAT) at <http://hstat.nlm.nih.gov>

Other websites to note:

- National Research Register - database of ongoing and recently completed trials funded by NHS in UK ([www.doh.gov.uk/research/nrr.htm](http://www.doh.gov.uk/research/nrr.htm))
  - NLM Gateway (<http://gateway.nlm.nih.gov/gw/Cmd>) includes Clinical Trials (a database of ongoing US trials)
  - TRIP Database (US) Translating Research into Practice ([www.tripdatabase.com](http://www.tripdatabase.com))
  - PubMed free - internet version of Medline available through NLM Gateway or directly at <http://www.ncbi.nih.gov/entrez/query.fcgi>
- Physiotherapy website - <http://www.pedro.fhs.usyd.edu.au/>
- SUMSearch smart search engine - <http://SUMSearch.uthscsa.edu/searchform4.htm>

## Handsearching

Time consuming page-by-page searching through publications such as the abstract books from relevant conferences and scientific meetings can yield references to ongoing or unpublished research that may be very relevant, and not available electronically. It is recommended that contact be made with a relevant Cochrane Review Group to avoid duplication of effort.

## Reference Lists

Searching through the reference list and bibliographies of relevant reviews and research already obtained can yield new research that may not be identified through electronic searches. Grey literature, such as unpublished technical reports, dissertations and theses may be identified in this way. Scisearch Database gives information about where a given reference has been subsequently cited, for example, it may identify an economic evaluation published subsequent to an RCT.

## Direct Contact with Pharmaceutical Companies/Researchers

Requests for unpublished information, or preliminary results may be successful.

## New Zealand Data Sources

- GP Waimedca (McAvoy 1993)
- GP database (RNZCGP Dunedin, Computernet)
- Drug Utilisation databases, eg IMS, PHARMAC
- Specific studies, eg Auckland Heart Study for cardiovascular disease, hospital data, Ministry of Health
- New Zealand Health Information Service - National Mortality/Morbidity figures
- Health Benefits Ltd.
- Statistics New Zealand
- Accident Compensation Commission.

More details on searching methodology are available in the NZGG *Handbook for the Preparation of Explicit Evidence-based Clinical Practice Guidelines*. This is available free of charge from the NZGG website [www.nzgg.org.nz](http://www.nzgg.org.nz)

## Other Publications

*Clinical Evidence* is a compendium of the latest international source of the evidence on the effects of clinical interventions. It is published by the British Medical Journal every six months. More details are available at [www.clinicalevidence.org](http://www.clinicalevidence.org)

*Effectiveness Matters* and *Effective Health Care* are available at <http://www0.york.ac.uk/inst/crd/em.htm>

*New Zealand Evidence Based HealthCare Bulletin* is produced by New Zealand Guidelines Group. This monthly Bulletin provides updates on guidelines and clinical research from around New Zealand and overseas. It provides links to hundreds of reliable overseas evidence-based websites.

*Health Technology Assessment Reports* – There is an International Network of Agencies for Health Technology Assessment (INAHTA). These organisations undertake systematic multi-disciplinary reviews and assessments, based on evidence. Reports are available at <http://nzhta.chmeds.ac.nz/inahta/inahta.htm>

Links to other recommended publications are included on NZGG's website [www.nzgg.org.nz](http://www.nzgg.org.nz)

## Making Sense of the Evidence – Sources of Assistance

There are a number of organizations available to assist with the analysis, interpretation and application of the evidence. Identifying the primary studies, systematic reviews and existing guidelines from New Zealand and elsewhere is fundamental to the production of an evidence-based guideline. These specialist skills are available from the following sources.

### Medical Librarians

Medical libraries employ specialist staff who have the expertise to provide assistance with the design and execution of electronic searches and the use of bibliographic database software. Medical librarians will also be able to assist guideline development teams to obtain hard copies of material through interlibrary loans.



### New Zealand Guidelines Group

The New Zealand Guidelines Group promotes effective health and disability services in New Zealand through the use of evidence. NZGG provides training on the use of evidence and the development of evidence-based guidelines, and shares a wide range of information about the evidence-based movement.

Telephone: 04 471 4180

Email: [info@nzgg.org.nz](mailto:info@nzgg.org.nz)

Internet: [www.nzgg.org.nz](http://www.nzgg.org.nz)



### NZ Health Technology Assessment

(Clearing House for Health Outcomes and Health Technology Assessment in New Zealand)

NZ Health Technology Assessment (NZHTA) has been established at the Department of Public Health and General Practice within the Christchurch School of Medicine and Health Sciences, University of Otago. The main function of NZHTA is to locate and appraise information to determine effective health care interventions thereby facilitating evidence-based policy making and purchasing by the New Zealand funders of health and disability services and access to evidence based information by providers and consumers of health care. NZHTA staff have skills in epidemiology, health services research and evaluation, ethics, nursing, health psychology, health technology assessment, clinical trials and data management and health data analysis. NZHTA provides:

- Assistance with literature searching and critical appraisal of the literature
- Comprehensive literature searches
- Systematic reviews and evaluations of health interventions.

Copies of all NZHTA reports are available to download free from NZHTA website <http://nzhta.chmeds.ac.nz>

Telephone: 03 364 1152

Email: [nzhta@chmeds.ac.nz](mailto:nzhta@chmeds.ac.nz)

Internet: <http://nzhta.chmeds.ac.nz>



## Cochrane Collaboration

See earlier description of the Cochrane Library. All of the databases that comprise the Cochrane library require a subscription - either CDROM or Internet version ([www.cochrane.org](http://www.cochrane.org)) Abstracts of completed reviews are available free on internet and indexed in Medline

There is one Cochrane Group based in New Zealand – the Cochrane Menstrual Disorders and Subfertility Group at NWH, University of Auckland. The group is a good source of advice and can undertake reviews and critical appraisals. The group has been involved in the development of evidence-based guidelines including HRT, Heavy Menstrual Bleeding and the Treatment of Uterine Fibroids.

For more information please contact Michelle Proctor.

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*Email:* [m.proctor@auckland.ac.nz](mailto:m.proctor@auckland.ac.nz)



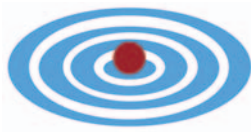
## Effective Practice Institute (EPI)

Based at the Division of Community Health, University of Auckland, EPI was set up initially to develop teaching programmes in evidence-based practice. EPI also initiates and develops new guidelines and offers an advisory service for other guideline development teams. EPI staff are either health professionals or individuals who have skills in biostatistics, epidemiology, health economics, health outcomes, health information, health management and policy, and consumer representation. NZGG currently contracts to EPI to lead the 2-day guideline development training courses.

*Telephone:* 09 373 7599 ext. 2363

*Fax:* 09 373 7494

*Email:* [epi-manager@auckland.ac.nz](mailto:epi-manager@auckland.ac.nz)



## Centre for Evidence Based Nursing – AOTEAROA

Based in Auckland, the Centre was initially founded as part of the Australian Joanna Briggs Institute. The New Zealand Centre has been active in providing evidence-based training for nurses and in producing evidence-based guidelines.

*Telephone:* 09 379 7440 ext. 7380

*Fax:* 09 307 2818

*Email:* [CatherineT@adhb.govt.nz](mailto:CatherineT@adhb.govt.nz)

*Internet:* [www.health.auckland.ac.nz/nursing](http://www.health.auckland.ac.nz/nursing)



## Donald Beasley Institute

The Donald Beasley Institute Inc. is a national, independent, non-profit organisation. The two broad aims of the Institute are to promote and carry out applied research in the area of intellectual disability and to educate everyone involved about current knowledge and philosophies relating to people with intellectual disabilities.

*Telephone:* 03 479 8080

*Email:* [donald.beasley@stonebow.otago.ac.nz](mailto:donald.beasley@stonebow.otago.ac.nz)

*Internet:* [www.donaldbeasley.org.nz/index.html](http://www.donaldbeasley.org.nz/index.html)

## University Research Departments

All of the NZ medical schools have researchers who have a good understanding of evidence-based research.