



Systematic review

What is a systematic review?

The purpose of a systematic review is to sum up the best available research on a specific question by synthesizing the results of several studies. A systematic review uses transparent procedures to find, evaluate and synthesize the results of relevant research. Procedures are explicitly defined in advance, in order to ensure that the exercise is transparent and can be replicated. The methods used include steps to minimize bias in all parts of the process: identifying relevant studies, selecting them for inclusion, and collecting and combining their data. Studies should be sought regardless of their results. This is done both to ensure that reviews can be updated as new relevant information emerges, and to minimize bias. Studies included in a review are screened for quality, so that the findings of a large number of studies can be combined. Peer review is a key part of the process. (From the websites of the Cochrane and Campbell collaborations).

Useful websites:

The Cochrane Collaboration:

www.cochrane.co.uk

The UK Cochrane Centre was established in Oxford in 1992 by the NHS Research and Development (R&D) Programme 'to facilitate and co-ordinate the preparation and maintenance of systematic reviews of randomized controlled trials of healthcare' and is now part of the National Institute for Health Research (NIHR). The Cochrane Collaboration is named after the British epidemiologist, Archie Cochrane. To access the Cochrane Library go to www.thecochranelibrary.com which has free access to all residents within England due to funding from the National Library for Health. Cochrane reviews are recognised as the gold standard in evidence-based health care and the library contains over 4000 reviews.

The Cochrane Collaboration is divided into Groups: *Cochrane Review Groups*, each of which concentrates on a specific healthcare area. The Cochrane Collaboration provides a guide to conducting systematic reviews within healthcare and further information is also available from the Cochrane Review Groups.

The Campbell collaboration:

www.campbellcollaboration.org

The Campbell Collaboration is a sibling organization to the Cochrane Collaboration and was established in 2000 by members of the latter who saw the need for an organization that would produce systematic reviews of research evidence on the effectiveness of social interventions.

The Campbell Collaboration is named after Donald Campbell, a member of the National Academy of Sciences in the USA, who advocated that scientific evidence could be generated to estimate the effects of governmental reforms, resulting in better informed policy and practice.

The Campbell Collaboration is an international research network that prepares and disseminates high quality systematic reviews in three interlinked fields: education, crime and justice and social welfare. The Campbell Collaboration's International Secretariat is located in Oslo and is hosted by the Norwegian Knowledge Centre for the Health Services. As with the Cochrane Collaboration reviews can also be accessed from the library free of charge.

The Campbell Collaboration provides a guide to conducting systematic reviews within social welfare.

The Centre for Reviews and Dissemination:

www.york.ac.uk/inst/crd

The Centre for Reviews and Dissemination is a department of the University of York and is part of the National Institute for Health Research. CRD undertakes systematic reviews that evaluate the effects of health and social care interventions and the delivery and organisation of health care.

The following databases are available from CRD:

Database of Abstracts of Reviews of Effects (DARE)

DARE contains abstracts of systematic reviews that have been quality-assessed. The database includes over 3000 abstracts of reviews and complements the *Cochrane Database of Systematic Reviews* by quality-assessing and summarizing reviews that have not yet been carried out by The Cochrane Collaboration.

Health Technology Assessment (HTA) Database

The HTA database brings together details of completed and ongoing health technology assessments (studies of the medical, social, ethical and economic implications of healthcare interventions) from around the world.

NHS Economic Evaluation Database (NHSEED; Economic Evaluations)

As healthcare resources are finite, information about both costs and effects are essential to making evidence-based decisions about competing healthcare interventions. But information about cost-effectiveness can be difficult to identify, appraise and interpret.

NHS EED assists decision-makers by systematically identifying economic evaluations from around the world, appraising their quality and highlighting their relative strengths and weaknesses. The database contains over 5000 abstracts of quality-assessed economic evaluations.