

Centre for Reviews and Dissemination databases: Value, content, and developments

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Background: The Centre for Reviews and Dissemination (CRD) funded through the United Kingdom National Institute for Health Research undertakes systematic reviews evaluating the research evidence on health and public health questions of national and international importance. CRD is involved in methods research and produces internationally accepted guidelines for undertaking systematic reviews. A core product of the Centre are the CRD databases; a key resource for health professionals, policy makers, and researchers around the world. Research evidence evaluating the effects and cost-effectiveness of healthcare interventions is growing year on year, and can be difficult and time consuming to identify and appraise. The databases assist decision makers by systematically identifying and critically describing systematic reviews and economic evaluations, appraising their quality and highlighting their relative strengths and weaknesses; and providing a comprehensive listing of ongoing and published health technology assessments.

Methods and Results: This article briefly outlines the processes behind each of the three databases, gives details of the records, the information they contain and the value added by CRD. An overview of the new public interface for the CRD databases to be launched later this year is given. Improvements and innovations to supplement existing functions are listed, including enhanced and new search options, the addition of quick links to relevant material from within individual records, an integrated PubMed search and the ability to select personal preferences.

Conclusions: CRD's databases provide free access to an important knowledge base and are used widely to underpin evidence informed healthcare decisions in the United Kingdom and internationally.

Keywords: Cost benefit analysis, Databases as topic, Health services research, Review literature as topic, Technology assessment, Biomedical

The Centre for Reviews and Dissemination (CRD) databases provide free access to quality assessed evidence to inform health and social care policy, practice and research. The Database of Abstracts of Reviews of Effects (DARE) and the NHS Economic Evaluation Database (NHS EED) assist decision makers by systematically iden-

tifying and describing systematic reviews and economic evaluations, appraising their quality and highlighting their relative strengths and weaknesses. The Health Technology Assessment (HTA) database provides a comprehensive listing of ongoing and published health technology assessments.

Users of the databases include health professionals and managers, information specialists, health and social care policy makers, researchers, and students from around the world. In 2009 over 400,000 identifiable unique users from around 209 countries and territories viewed over 4 million records free of charge by means of the CRD Web site (www.crd.york.ac.uk/crdweb/). The content is also available through several other platforms, including the Cochrane Library, however, CRD's dedicated search facility gives access to the most current records.

The CRD databases have, since 1994, evolved to best meet user needs, keep pace with developments in research and exploit new technologies. This article aims to provide an overview of the value and content of the CRD databases and an introduction to the new developments being implemented in 2010.

THE CRD DATABASES

DARE contains over 8,000 critical abstracts of quality assessed systematic reviews, in excess of 3,800 bibliographic records of systematic reviews, and summaries of all Cochrane reviews and protocols. A new feature is the inclusion of summaries of all relevant Campbell Collaboration reviews and protocols.

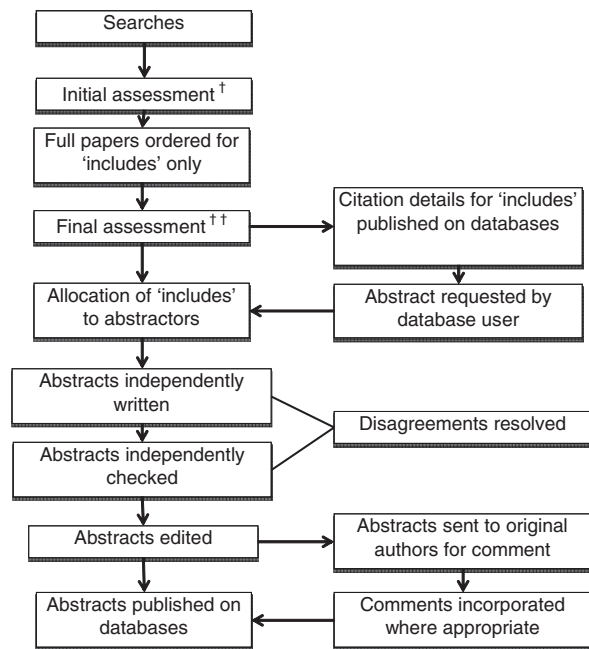
The production process for DARE is set out in Figure 1. Reviews for inclusion in DARE are identified from regular searching of bibliographic databases (e.g., MEDLINE, CINAHL, EMBASE), and by scanning gray literature and selected web sites. The BMJ, Lancet, JAMA, Annals of Internal Medicine, and Archives of Internal Medicine are hand searched on publication; identified reviews are fast-tracked and available to users usually within 1 week of journal publication.

To improve the timeliness of content, as soon as reviews potentially meeting the DARE inclusion criteria are identified, details are loaded onto the database as bibliographic records. Whether an abstract will automatically be written or only prepared if requested by a user is stated in the record.

DARE abstracts are written by masters or doctorate level researchers who critically appraise what can be complex research. Abstracts start with a 60-word summary giving the topic, the findings of the review and CRD's assessment of the reliability of the findings. The structured format of the abstract then includes a description of the review and provides users with a more detailed, independent assessment of the reliability of the review findings.

NHS EED contains over 8,000 quality assessments of full economic evaluations of health interventions, including cost-benefit, cost-utility, and cost-effectiveness analyses. In addition there are over 2,000 bibliographic records of economic evaluations for abstraction on demand.

NHS EED abstracts aim to help guide users through the complexities of economic evidence presented in the literature. Production of NHS EED content follows a similar



† Title and abstract reviewed to see if a) there are any data on the effects of an intervention a systematic review methods were used

†† Full paper reviewed to see if a) the search was adequate b) inclusion/exclusion criteria were reported c) the data were synthesised d) the study was quality assessed and/or e) adequate details were reported.

Figure 1. Production process for DARE.

process to DARE. Written and checked by experienced health economists, the critical abstract provides users with a summary of the study, as reported by the authors, and a value added CRD commentary. The aim of the commentary is to describe the strengths and weaknesses of the study, highlight the potential impact of any weaknesses and provide a general guide to the validity of the findings.

Bibliographic databases such as MEDLINE, EMBASE, and PsycINFO are regularly searched along with hand searching of selected journals. As with DARE, as soon as an economic evaluation is identified as potentially meeting the NHS EED inclusion criteria, the bibliographic details are loaded onto the database. Details of whether an abstract will automatically be prepared, or only prepared if requested by a user, are included in the record, together with information about how to request an abstract be written.

NHS EED is re-focusing on its original purpose; highlighting the reliability of available full economic evaluations to inform policy and practice decisions, so will no longer contain details of partial economic evaluations, outcome valuation studies, costing studies, or reviews of economic evaluations. Instead, an integrated PubMed search will return other potentially relevant evidence which may be outside the scope of NHS EED, but within the scope of user needs.

The **HTA Database** contains bibliographic records of over 7,000 published health technology assessments and over 1,000 technology assessments in-progress from around the world. Much of the information contained in the HTA database is not readily available from other sources. For example the reports included are generally not published as journal articles and, therefore, not listed in other databases but are only available as full reports from the commissioning organization.

The database provides a free, single search facility of records from the fifty-two members of International Network of Agencies for Health Technology Assessment (IN-AHTA) as well as nearly twenty other HTA organizations worldwide. There are two record types, *Projects in-progress*, which become *Published projects* once the full report becomes available. Content is continually submitted by the contributing organizations, for checking and posting on the HTA database.

Records contain bibliographic information plus brief details of the authors' objectives and author's conclusions if these are provided by the organization. Unlike DARE and NHS EED, the published reports on the HTA database are not critically appraised. However, where a critical appraisal of the report has been prepared for DARE and/or NHS EED, links to the relevant abstract are provided. Likewise, links to INAHTA briefs and checklists are provided.

All the records on the CRD databases contain the bibliographic reference for the review, economic evaluation or technology assessment, an explanation of the record status, subject index terms (from MeSH), and, where available, links to the PubMed record and the original research. Each database record has a unique identifying accession number and gives the date on which the record was entered on the database, or last updated.

The New Interface

The new interface is the latest development in the evolution of CRD's databases. Our aim is to ensure the databases best meet user needs, keep pace with advances in research and exploit new technologies. For example, the databases are now updated weekly rather than monthly, and will soon go to continuous addition of new records.

Informed by analysis of user surveys and database usage statistics, further improvements and innovations are being introduced to supplement existing functions, including:

A Range of Search Options. Search one or all of the CRD databases using: Quick search—enter single word or search string for instant search; Guided search—'browse' type option within topics; Advanced search—combine search terms in all or selected fields; and MeSH thesaurus—now integrated.

Search Results Options. Re-order options; View Preview; and Export options.

Search Strategies. Export and import facilities; offline editing and re-run facility; and free access to CRD strategies.

Integrated PubMed Search. Runs alongside every search. Results available in separate tab.

Presentation of Records. Simple clear presentation style. Quick links to the following: Print; Create a PDF; Request notification when record updated; Bookmark; Share by means of e-mail or Web 2.0 applications; PubMed record (where possible); Original research (where possible); and Other relevant information.

Selecting Personal Preferences. Free registration allows users to: Save and modify search strategies; Access CRD strategies; Set saved searches to run automatically at set frequencies; Select options for presentation of search results (e.g., default order, number per screen); and Select topic specific e-mail alerts or RSS feeds at preferred frequency.

CONCLUSIONS

CRD's databases provide an important knowledge base and are used widely to underpin evidence informed healthcare decisions in the United Kingdom and internationally. The new innovations will improve accessibility, and ensure that the databases continue to provide timely, quality appraised evidence to best meet the needs of users. Comments and feedback are welcome at crd@york.ac.uk.

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CONFLICT OF INTEREST

The Centre for Reviews and Dissemination (CRD) is part of the UK's National Institute for Health Research (NIHR) and a department of the University of York. NIHR core funds the CRD databases. A. Booth and K. Wright are employed by CRD and involved in the production of the CRD databases. H. Outhwaite reports no potential conflicts of interest.