

# Evidence-based healthcare and the Cochrane Library



## John Eyers on the origins of the evidence-based movement

*'It is surely a great criticism of our profession that we have not organised a critical summary, by specialty or subspecialty, adapted periodically, of all relevant randomised controlled trials.'* Archie Cochrane, *British epidemiologist*, 1979.

In each issue of *Africa Health*, there is a section called *Evidence Update* based on a Cochrane systematic review of a medical or health intervention. This article will provide the background to the evidence-based movement and the place of the Cochrane Collaboration in its history, with a brief discussion of the Cochrane Library.

### Background

The Cochrane Collaboration and Library are named after a British epidemiologist, Archie Cochrane (1909–1988), who pointed to the difficulty (in the 1970s and before) of identifying clinical trials and, particularly, randomised controlled trials (RCTs) in the medical literature. At the time, the database Medline (which is now included in Pubmed) had no index term for randomised controlled trial which could be searched. The formation of the Collaboration in 1993 led to a worldwide search of the medical literature – through electronic databases and manual searching of journals – for clinical trials to be included in a database of clinical trials now part of the Cochrane Library. This database, together with other biomedical databases, now serves as a resource for identifying RCTs, considered by Archie Cochrane as the gold standard of evidence, that are selected for systematic reviews.<sup>1</sup>

### The Cochrane Collaboration

The Cochrane Collaboration is an international, non-profit, independent organisation, which produces and disseminates up-to-date systematic reviews of healthcare interventions worldwide, with emphasis on online distribution. Comprising over 28 000 people involved in over 100 countries, it is made up of Review Groups, Centres, Methods Groups and other sections. The Review Groups do much of the preparation, maintenance, and updating of Cochrane Reviews, with editorial and review

expertise on hand to assist those preparing reviews. Each group focuses on an area of health such as infectious diseases, HIV/AIDS, eyes and vision. There are 13 Cochrane Centres which are country-based. The South African Cochrane Centre (with a branch in Nigeria) exists to *'To promote access to and the use of best evidence in healthcare decision-making within Africa.'*<sup>2</sup> The Methods Groups exist to modify and improve the process of reviewing.

### The Cochrane Library

The Cochrane Library is a collection of six databases which include systematic reviews, a controlled trials register (this is the most complete bibliography of identified clinical trials), a methodology register, NHS economic evaluation database, health technology assessment database, and a database of abstracts of reviews of effects. Most users of the Library will access the systematic reviews database, which now contains over 4000 reviews. Each review presents a standard format, rather similar to a journal research paper, but with additional sections such as a plain language summary, and authors' conclusions which are divided into 'Implications for practice' and 'Implications for research'. Full data analyses and tables are also included together with database search strategies and bibliography.<sup>3</sup> Where new evidence becomes available, the review will be updated. Of interest to health in Africa, the Infectious Diseases Review Group at Liverpool UK has a specific brief to commission and publish systematic reviews covering important diseases such as malaria, TB, diarrhoea, and tropical diseases.

### How to access the Cochrane Library

For most African countries, the Cochrane Library (and other EBM resources) can be accessed through Hinari (<http://www.int/hinari/en/>).<sup>4</sup> Other EBM resources include the Trip Database (with specific recommendations for developing countries) – <http://www.tripdatabase.com>. Also available through Hinari are: EBM Guidelines; Clinical Evidence; BMJ Best Practice; and the World Health Organization Reproductive Health Library.

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As a member of HIFA2015 (<http://www.hifa2015.org/>), John Eyers believes one of the biggest challenges for improved health in less-developed countries is ensuring that equal access to appropriate and evidence-based health information is made available to all. John would be delighted to receive comments and suggestions for future articles. Email him on: [johneymers@hotmail.com](mailto:johneymers@hotmail.com).

### References

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2. South African Medical Research Council – SACC. <http://www.mrc.ac.za/cochrane/cochrane.html>.
3. Cochrane Library. <http://www.thecochranelibrary.com/view/0/AboutCochraneSystematicReviews.html>
4. For further details of Hinari, see *Africa Health*, May 2010; Vol 32: 41. [http://www.africa-health.com/back\\_issues.html](http://www.africa-health.com/back_issues.html).