

# Hypothesis: The Research Page

## The Cochrane Collaboration: for family physician researchers

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Evidence-based medicine (EBM) is the conscientious, explicit, and judicious use of current best evidence in making decisions about care for individual patients. The practice of EBM means integrating individual clinical expertise with the best available external clinical evidence from systematic research. By individual clinical expertise we mean the proficiency and judgment that individual clinicians acquire through clinical experience and clinical practice.<sup>1</sup> This paper briefly describes the Cochrane Collaboration and outlines why family medicine researchers should get involved in the Cochrane Collaboration and how they can do so.<sup>2</sup>

### To meet Cochrane's challenge

In 1992, Iain Chalmers and his colleagues<sup>3</sup> opened the doors to a world of potential research when they republished Archie Cochrane's famous quote, "It is surely a great criticism of our profession that we have not organized a critical summary, by specialty or subspecialty, updated periodically, of all relevant randomized controlled trials." Chalmers and colleagues urged health care workers to meet the challenge of these words. The first Cochrane Centre was opened in Oxford, England,<sup>3</sup> and the mission of the Cochrane Collaboration became to "help people make well-informed decisions about healthcare by preparing, maintaining and promoting the accessibility of systematic reviews of the effects of healthcare interventions."<sup>4</sup> The New York Academy of Sciences furthered the idea, and in October 1993, at the first in a series of annual Cochrane Colloquiums, 77 people from 11 countries cofounded the Cochrane Collaboration. The first Colloquium was chaired by Peter Tugwell (coordinating editor of the Cochrane Musculoskeletal Group in Ottawa, Ont). The Canadian Centre of the Cochrane Collaboration

became the second Centre when it was registered in August 1993 and has since been hosted by McMaster University in Hamilton, Ont. The Canadian Cochrane Network was established in 1995 with 16 site representatives at each of the academic health sciences centres across Canada.

Forty-nine review groups in specialty areas that take on the task of preparing and maintaining Cochrane reviews conduct the main work of the Cochrane Collaboration ([www.cochrane.org](http://www.cochrane.org)). The product of these groups and much else besides is published in an electronic journal entitled *The Cochrane Library*, which is available on CD-ROM and on the Internet. *The Cochrane Library* contains the Cochrane database of systematic reviews, the Cochrane Controlled Trials Register, and several other databases, as well as information on the Cochrane Collaboration.

Some people have described EBM and the Cochrane Collaboration as trying to take over health care. Those involved intimately in these organizations have gone to great lengths to be inclusive. Effective communication is one of the biggest challenges now facing the Cochrane Collaboration. The organization would prefer everyone around the world to have equal access to the information it produces and to the new knowledge that it generates. This is very difficult to achieve, but the Cochrane Collaboration works to a set of principles aimed at achieving equality for members and equal access to the knowledge.

Cochrane reviews have already provided substantial evidence relevant to health care. Reviews are relevant to a range of policies and are widely cited in guidelines.<sup>5</sup> Several electronic sources provide the works collected by the Cochrane Collaboration. The Cochrane database of systematic reviews,<sup>6</sup> which is part of *The*



*Cochrane Library*, contains 1300 reviews and more than 1000 protocols for reviews in progress. The Cochrane Controlled Trials Register contains more than 330000 records. This is probably one of the most useful tools for clinicians making decisions and for clinicians in training who are learning how to make clinical decisions about health care interventions.

The Cochrane Collaboration is traditionally multidisciplinary but is moving toward a transdisciplinary approach in both development of its methods and production of its reviews. For example, in association with the Campbell Collaboration (which is a sibling organization for interventions relating to criminology, social policy, and education), members of the Cochrane Musculoskeletal Group are working with reviewers who have a broader view of social sciences and law. In the future, other faculties and disciplines will work together to achieve a common goal by conducting both qualitative and quantitative systematic reviews.

The Cochrane Collaboration includes and requires many people from different backgrounds and cultures who bring with them different types of expertise. This diversity is a strength.

Health professionals, researchers, policy makers, and people using the health system are bombarded with information, some of which is user-friendly but much of which is not. The Cochrane Collaboration's goal is to enhance transfer and exchange of information by providing its core product: high-quality, up-to-date Cochrane reviews that can then be translated into consumer-friendly products. As well as results from systematic reviews, the Cochrane Collaboration also makes public information that is used by those involved in the organization, such as the *Cochrane Reviewers' Handbook* and *The Cochrane Manual*. It also produces new knowledge relating to methodology for conducting systematic reviews, statistical analyses, and economic evaluations in systematic reviews.

The best available knowledge must be used when making decisions for populations or groups of patients. As with clinical decision-making, systematic reviews aim to provide this, although information is not always available if the necessary trials have not been done. As in clinical decision-making, however, other factors have to be taken into account, notably values and resources. These are best expressed as three components: evidence, values, and resources.<sup>4</sup>

### Role for family practice researchers

Systematic reviews provide structure for thorough review of previous research. Issues relating to the completeness of the evidence identified, the quality of component studies, and whether or not evidence can be combined are made explicit. Researchers in family practice can have a very important role in this process. They are well connected with primary care and multidisciplinary teams, and they are able to critically appraise literature. They can have an important role in producing systematic reviews for the Cochrane Collaboration but, equally importantly, they can gain a lot from doing so. First, they can gain a systematic and deep understanding of their field of study. Second, they learn better research methods. Third, either because they helped produce a systematic review or are using one already produced in the Cochrane database, they will identify great ideas for future research questions.

Indeed, every Cochrane review ends with a section entitled "Implications for future research." Hence, *The Cochrane Library* is a gold mine of ideas for future research, arising from the best methodologic approach to assessing all that has gone before. Last but not least, new Canadian Institutes of Health Research guidelines for appraising grant proposals require applicants to present their projects on the basis of a thorough systematic review (either their own or one done by somebody else). The Canadian Institutes of Health Research are following the lead of other countries, such as The Netherlands, Australia, and the United Kingdom. For all these reasons, we strongly believe that building capacity in family medicine research requires participation in the Cochrane Collaboration. So let's get to it!

For more information on the Cochrane Collaboration, contact the authors or see [www.cochrane.org](http://www.cochrane.org). ♦

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*commitment to the Cochrane Collaboration was vital to maintaining the production and enthusiasm of this international organization.*

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