Overview: Keeping up to date with methods research.

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Cochrane Reviews should be informed by evidence-based methods. Methods relevant to the conduct of systematic reviews (SRs) cover many topics and subjects reflecting the multidisciplinary nature of SRs. Methods also involve processes used to complete SRs. Review methods encompass everything from deciding on the best statistical model for pooling to deciding whether text mining approaches are as reliable as human beings for data extraction. Review methods cover not only how reviews are undertaken, but also how the primary research studies reviewed were undertaken. Cochrane members need to keep up to date with detailed knowledge of new methods in their own disciplines and to keep abreast, more generally, with best evidence for methods and processes in SRs beyond their own discipline. Although keeping up to date and assimilating new methods evidence is personal for every Cochrane member, it is also an activity Cochrane as an organization should encourage and, where possible, facilitate. How best to facilitate methods updates is a continuing debate within Cochrane. This commentary reflects briefly on the past and explores some current and future options.

Until July 2012 the Cochrane Methodology Register (CMR) was the tool of choice for many members of Cochrane. This central bibliography of research around systematic review methods was compiled by the UK Cochrane Centre on behalf of the Cochrane Methodology Review Group. Cochrane members benefitted from one group taking on the hard work of identifying and classifying relevant research making it available in a searchable database. Since the closure of CMR for new records there is no single, regularly updated resource that Cochrane members can access that is focused solely on SR methods. A bespoke methods database, that includes full text articles, and is regularly updated, with a well-organized index by methods topic, searchable and freely available to members would be ideal for a large organization with disparate methodological disciplines with many methods interests. However, it is challenging to define the remit of such a database, which would be an expensive resource – carrying with it licensing and copyright complexities – when building a database from many different resources.

If such a single organizational database is not currently feasible, we could explore other options. Some options are discussed below:

1. We could produce a collaborative database facilitated by Cochrane. It is highly likely many Cochrane members have their own personal databases of methods papers held in Mendeley, Paperpile, EndNote or in similar software. Also Cochrane Review Groups' specialized registers may contain records of methods papers. Cochrane could encourage members and Groups to load records into a central repository. However, such a repository will need the records to be de-duplicated and indexed (if this is deemed useful), which in turn requires a relevant thesaurus and management of any copyright and licensing issues.

2. Other organizations maintain similar databases, so individual Cochrane members could contribute to those databases or Cochrane could collaborate to increase or enhance coverage. For example, the SRC Methods Library of the Agency for Healthcare Research and Quality is a searchable library of over 12,000 references on reviews and health technology assessment methods and processes. The challenge is to evaluate the extent of the coverage of such databases and how far they map on to the requirements and interests of Cochrane members. Such a project would also require resources.

3. Many Cochrane members are probably using personal current awareness services to keep up to date. These are very varied and can take many forms including RSS feeds, email discussion lists, signing up to receive the contents pages of journals, reading blogs and subscribing to newsletters from key organizations. Saved searches can be set up on large bibliographic databases such as MEDLINE and members receive the results of any new publications meeting the search criteria in an email. These are both passive and active ways to receive new information on methods of interest. A recent innovation via PubMed is a PubMed Systematic Review methods filter. This is a tool we will likely wish to evaluate to see how far it meets our individual and general methods needs. There are also a range of academic websites such as ResearchGate, Academia.edu and ORCID as well as professional networking services, such as LinkedIn, that offer ways to keep up to date with methods developments by following authors and their outputs.

4. The Cochrane Handbooks (for systematic reviews of interventions and diagnostic test accuracy) are one excellent form of evidence-based guidance and provide summaries of current best evidence-based methods to those of us lacking time to review methods developments. However, we keenly await their update. *Cochrane Handbook* chapters would benefit from transparent reporting of their update process. Other summaries in specific disciplines may also be valuable. The SuRe Info evidence-based summaries for information retrieval in health technology assessment are intended to save searchers the time needed to keep up to date on methods development in various searching issues. The SuRe Info approach provides a possible template for other methods topics.

5. Cochrane needs to funnel its scarce resources by promoting awareness of methods developments. A useful approach would be to evaluate current awareness resources for their currency, overlap and added value, and provide Cochrane members with guidance about which are most reliable for their disciplines. This could start with the creation of an inventory or portal with links to the different resources, perhaps via the Cochrane Methods website. If the resources are to be evaluated, it might be helpful to canvas Cochrane members for information about what they need to know about a methods resource in order to decide how to use it. For example, which methods are covered, how the current awareness is carried out, whether it is selective or comprehensive, how are updates supplied and how frequently. There are examples of this type of approach, such as the now retired resource 'Intute' or the EFSA inventory. Individuals might then amend or develop their own personal approaches to keeping up to date. They can also collaborate by contributing suggestions for new updating resources to the inventory or portal to share with others.