The Cochrane Collaboration and standards for performing systematic reviews

Kay Dickersin, PhD
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All effective care must be free.
The Cochrane Collaboration aims 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.
Opening of the UK Cochrane Centre - 1992

The first CCSG - February 1994, Hamilton, Ontario
Main tasks of the Collaboration

- Prepare and maintain systematic reviews
- Identify studies potentially eligible for reviews
  - Hand and electronically search the healthcare literature
  - Build specialized registers of studies
  - Contribute to Cochrane’s CENTRAL register of studies
- Train individuals in searching, performing reviews and other functions
- Promote accessibility of Cochrane reviews

The Cochrane Library
Published quarterly by John Wiley, Inc

- Cochrane Reviews
- Other databases
  - Other Reviews
    - Database of Methodological Reviews
    - Database of Abstracts of Reviews of Effectiveness
  - Clinical Trials (CENTRAL Register of Controlled Trials)
  - Methods Studies (Methodology Register)
  - Technology Assessments
  - Economic Evaluation
How is better decision-making informed?

- Values
- Participants have individual interests and expertise that they bring to the table
- Democratic organization, with CEO
- Documentation
- Education and training
- Continuous quality improvement
  - QA and QC

The Cochrane Collaboration values

- Collaboration
- Building on the enthusiasm of others
- Avoiding duplication
- Minimizing bias
- Keeping up to date
- Ensuring relevance
- Ensuring access
- Continually improving the quality of its work
- Maintaining continuity
- Enabling participation
Organization of the work

- Steering Group
- Centers
- Review Groups
- Consumer Network
- Methods Groups
- Fields
- Secretariat
- Editorial Unit
A loose network of willing participants

- Review Group Coordinators
- Trials Search Coordinators
- Editors, Coordinating Editors, Editorial Unit
- Authors
- Peer reviewers
- Critics and Criticism Editors
- Handsearchers
- Center staff
- Consumers
- Methodologists
- Ombudsman, publication arbiter, funding arbiter
- Secretariat
- Information Management System
- John Wiley and Sons
- Funders

Cochrane Centers

- Support active and prospective contributors within a region
13 Cochrane Centers & 13 branches

(NB: US are 2\textsuperscript{nd} only to the UK in numbers of contributors)

- Over 22,000 active contributors from over 100 countries
  - Over 2,200 active contributors from the US
  - Access highest (by far) from US
Cochrane Review Groups

- Prepare and maintain systematic reviews of ways to prevent, treat, and diagnose health problems

Cochrane Fields

- Identify health issues of importance to specific populations and/or intervention types, and facilitate reviews across the relevant review groups.
Methods Groups

- Provide advice and support to the Collaboration in the development of the methods of systematic reviews.

1995 Handbook meeting-Oslo
Part 3

SPECIAL TOPICS

13 Including non-randomized studies

17 Patient-reported outcomes

20 Qualitative research and Cochrane reviews

21 Reviews in public health and health promotion

22 Overviews of reviews

Index
Consumer Network

- Enhances and supports consumer participation in the CC

Cochrane Steering Group

- Sets policy for the organization, using input from its subgroups.
- Elected representatives of each of the Collaboration entities (e.g. Review Groups, Fields, Centers, Methods groups, CCNet, etc.)
Advisory Groups to the Steering Group

- Cochrane Library Users’ Group
- Colloquium Policy Advisory Group
- Feedback Management Advisory Group
- Handbook Advisory Group
- Information Management Advisory Group
Secretariat

- Administers policy for the Steering Group, its sub- and advisory groups, and also handles all administration relevant to the running of these groups.

Information Management System
RevMan

RevMan (Review Manager) is the software used for preparing and maintaining Cochrane systematic reviews. You can use RevMan for protocol and full reviews. It is most useful when you have formulated the question for the review, and allow you to prepare the test, build the tables showing the characteristics of studies and the comparisons in the review, and add study data. It can perform meta-analyses and present the results graphically.

Together with Archie, RevMan forms the Cochrane Information Management System (IMS), which is designed to enable contributors to the Cochrane Collaboration to meet the demands of producing high quality systematic reviews of the evidence of the effects of healthcare and deliver these for publication in The Cochrane Library and elsewhere.

RevMan continues to be developed through an ongoing process of consultation with its users and if you have any suggestions for improvements, please let us know.

RevMan 5 was released on 14 March 2009 (updated to 5.0.22 on 15 October 2009).

Index of the content available for RevMan
- Licensing - Information on licensing and permission to use RevMan
- Download - Information on how to download and install the software
- What’s New - New changes made in RevMan 5

Archie

Archie is the Cochrane Collaboration’s central server for managing documents and contacts.

Archie is the internet based repository for the Cochrane Collaboration documents and contact details. It contains data about all the persons involved in the Collaboration and about all the documents and reviews produced. Within Archie it is possible to read, print and compare current and past versions of a document.

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Last Archie version is 2.8.3 and was released on 14 October 2009.

Index of the content available for Archie
- Terms of Use
- Log in to Archie - How to request an account to access Archie
- What’s New - About recent changes to Archie
Review Manager (RevMan)

- Cochrane Collaboration software for:
  - Submitting review protocol
  - Data entry for analysis
  - Publishing completed reviews on Cochrane Database of Systematic Reviews

How does work get done?

- Annual colloquium
  - Meetings of entities
  - Training-workshops
  - Scientific sessions
  - Socializing-networking
- Regional meetings
- Email
- Telephone
- Videoconferencing
- Web – Facebook, Twitter, website
- Other meetings (subject area, methods)
Welcome

The United States Cochrane Center (USCC) is one of 12 Centers around the world that facilitate the work of The Cochrane Collaboration. Each Center takes responsibility for helping to coordinate and support members of the Collaboration in areas such as training, and each center promotes the objectives of the Collaboration in their region. The USCC is dedicated to promoting awareness of the Cochrane Collaboration and its objectives, and access to the Cochrane Library in the United States.

A special mission of the USCC is to support Consumers United for Evidence-based Healthcare (CUE), a partnership with health and consumer advocacy organizations interested in integrating understanding and interpretation of evidence-based healthcare into their advocacy activities, strengthening the voice of consumers in healthcare research, and providing input to policy makers.

UPCOMING EVENTS

- [Online Course: Consumer Advocacy: World Wide Web](http://www.cochrane.us/online-course)

PAST EVENTS

- July 22-24, 2009: [Completing a Systematic Review Workshop](http://www.cochrane.us/workshop), Baltimore, MD
- June 4-5, 2009: [Symposium: Summit on Using Quality Systematic Reviews to Inform Practice-based Guidelines](http://www.cochrane.us/symposium), Baltimore, MD

[Video: Cochrane Consumer Network](http://www.cochrane.us/video)
[Video: The Cochrane Collaboration](http://www.cochrane.us/video)
[Video: Consumers United for Evidence-based Health Care](http://www.cochrane.us/video)
Cochrane Process

- Authors identify topic of interest
- Editorial oversight & mentoring throughout the process of review planning & completion
- Procedures & standards laid out in the Cochrane Handbook
  - Produced by Methods Groups
- Authors commit to updating their reviews
- 3 levels of peer review: Protocol, completed review, post-publication feedback

Quality of Cochrane Reviews

- Culture of continuous improvement
- Active role for methodologists
  - Studies of Cochrane reviews
  - Cochrane Handbooks
    - Reviews of Interventions
    - Diagnostic Test Accuracy Reviews
    - Role in peer review (protocol & review)
- Stringent conflict of interest policy
- Documentation
- Education
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The reliable source of evidence in health care

Review production resources for authors & managing editors

For Cochrane review authors:
- Cochrane Handbook for Systematic Reviews of Interventions - the official guide to producing Cochrane reviews
- DevNote web page - documentation and support for software for preparing and maintaining Cochrane reviews
- GRADEpro (GRADE profiler) - the software used to create Summary of Findings (SoF) tables in Cochrane systematic reviews
- Cochrane Style Resources - compare your Cochrane Review against the official style guide
- Using Individual Patient Data - Power Point slides
- Re-publishing of reviews: explanation of procedures and permission form if you wish to re-publish your review in another scientific journal
- Reporting Guidelines
  - CONSORT - reporting of RCTs
  - PRESENT (previously QUORUM) (PDF document) - preferred reporting items for systematic reviews and meta-analyses
  - STRUGLE - reporting of observational studies in epidemiology
  - EQUATOR Network - collection of reporting guidelines
  - Cochrane Diagnostic Test Accuracy Group
  - Submission deadlines - includes information on deadlines for Copy Edit Support and module CENTRAL submissions, as well as publication dates for The Cochrane Library

Training - face-to-face
Contact Cochrane Centres or Review Groups about local workshops and courses in review production. Some of these events are listed on the Cochrane workshops page

Training - online
- Open Learning Materials - learn the steps in convenient online modules which supplement the Cochrane Reviewers' Handbook in helping you gain skills and complete your review

Training resources provided by other organizations:
- Undertaking Systematic Reviews of Research on Effectiveness - an extensive guide by the NHS Centre for Reviews & Dissemination

For Cochrane Review Groups (CRGs):
- Cochrane Policy Manual - start here to look up procedures
- CRG procedures collection (password required - ask your CRG administrator) - procedural resources for editorial teams, including checklists, forms, and examples from various CRGs. Provided by the Quality Advisory Group
- Submission deadlines - for Copy Edit Support and Module CENTRAL submissions, also includes Cochrane Library publication dates
- TSC & handbooks resources
  - CENTRAL & specialized registers resources - managed by the US Cochrane Center
  - Review Titles Manager - register and track titles for protocols and reviews
  - Cochrane Monitoring Programme for CRGs - monitoring for Managing Editors new to The Cochrane Collaboration
  - SUPPORTS - reference guide on where to find information in The Cochrane Collaboration

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Cochrane Handbook for Systematic Reviews of Interventions

The Cochrane Handbook for Systematic Reviews of Interventions is the official document that describes in detail the process of preparing and maintaining Cochrane systematic reviews on the effects of healthcare interventions. The current version of the Handbook is 5.0.2 (updated September 2009). It is available in various formats, as detailed below.

A Glossary is available to accompany the Handbook. The current version of the Glossary is 4.2.5.

A short summary of some of the main changes in Handbook version 5 is available as a PDF: What’s New in Handbook 5? To find out what was new in Version 5.0.1 and Version 5.0.2, see the What’s New page.

Browse the Handbook online at www.cochrane-handbook.org

Version 5.0.2 (updated September 2009) was uploaded in browseable format on September 29th, 2009. It should be cited as:


Details of how to cite individual chapters are available at the end of each chapter.

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TSC & handsearching resources

For Trials Search Co-ordinators (TSCs)

- TSC User Guide to Managing Specialized Registers and Handsearch Records (pdf)
- Guide for TSCs (pdf) - produced by Liz Dooley and Dymphna Hermans
- TSC e-mail discussion list
- Deadlines for submission of specialised registers and handsearch registers

Additional resources - including TSC Help Page, CENTRAL Management Plan, Master List, the Journals Handsearch Registration Form, and Specialized Register and Handsearch Results Log

For Handsearchers

The US Cochrane Center maintains the main source of training materials and databases for these handsearchers. Those who include:

- Training homepage
- For Cochrane Library users
## Review Manager 5 Tutorial

### PART 1 – Getting started
- Opening your review
- Setting up user details
- The RevMan 5 interface
- Saving a review
- Adding authors to a review

### PART 2 – Working with text
- Adding text to a review
- Formatting text
- Making changes to headings
- Adding notes
- Tracking changes in the text
- Checking your spelling

### PART 3 – Adding studies and references
- Adding studies to a review
- Adding references to a study
- Editing an existing reference
- Importing references from a text file
- Moving references
- Adding links to references in the text
- Removing a link
- Adding which links automatically
Why has Cochrane been so successful at instituting rigorous standards?

- **Culture**
  - Inclusive
  - Democratic
  - Critical, continuous improvement
  - Principles are at the center
  - Fun

- **Individuals**
  - Are productive and knowledgeable in their own rights
  - Have other projects and interests

- **Structure**
  - Set up from the outset, based on ECPC “pilot”
  - Documented
  - Kept up-to-date
  - Emphasis on quality, checks and balances
Is there any ongoing evaluation of the quality of Cochrane’s work?

- 2008-9 Review of the Collaboration
- Surveillance by methods groups
- Presentation of papers at the annual Colloquium
- Cochrane Register of Methodology Studies
- Cochrane reviews on methods topics
- Many others

Winner of Bill Silverman Prize 2009
David Moher for his examination of the quality of Cochrane reviews
2008 Thomas C. Chalmers Award for Methods Research

Tendal B et al. The data extraction challenge: observer variation when extracting data for the calculation of a standardised mean difference

What have we learned from the Cochrane experience?

- Methods used should be evidence-based
- Be transparent
- Document
- Educate
- Communicate
- Enable wide participation
What are we still learning about?

- How best to involve consumers meaningfully. By the very nature of their role, there are barriers to participation
- How best to meet a range of needs (developing countries, complex, expensive interventions)
- How best to prioritize reviews