**Editorial processes in the Cochrane Collaboration: guiding the authors from beginning to end**

The Cochrane Collaboration is an international, independent, not-for-profit organization of over 27,000 contributors from more than 100 countries, dedicated to making up-to-date, accurate information about the effects of health care readily available worldwide. Contributors work together to produce systematic assessments of healthcare interventions, known as [Cochrane Reviews](http://www.cochrane.org/cochrane-reviews), which are published online in [The Cochrane Library](http://www.thecochranelibrary.com). Cochrane Reviews are intended to help providers, practitioners and patients make informed decisions about health care, and are the most comprehensive, reliable and relevant source of evidence on which to base these decisions.

The Cochrane Collaboration has a unique organizational structure to meet the needs of producing high quality information. Within this complex structure, Cochrane Review[[1]](#footnote-1) Groups serve as editorial bases responsible for guiding the production of Cochrane Reviews in specific medical topic areas.

**Dario Sambunjak**, member of the EASE Publication Committee and the director of Croatian Branch of the Italian Cochrane Centre talked with managing editors of two Cochrane Review Groups during his study visit to Canada in May 2010. **Lara Maxwell** is the managing editor of the Cochrane Musculoskeletal Group (CMSG) and **Alain (Al) Mayhew** is the managing editor of the Cochrane Effective Practice and Organisation of Care (EPOC) Group. Both groups are based in the Institute of Population Health at the University of Ottawa.

Dario: CMG and EPOC are two of the 52 Cochrane Reviews Groups. Just to name a few others: Cystic Fibrosis and Genetic Disorders Group, Dementia and Cognitive Improvement Group, Gynecological Cancer Group, Peripheral Vascular Diseases Group… For an outsider, the logic behind the categorization of Cochrane Review Groups is not easy to grasp. How this categorization actually came to be?

Lara: The Cochrane Collaboration is a very grass-roots organization. It started with only a few people with this amazing idea, and the support that has expanded over the last dozen years was even beyond their wildest imagination. So, it was very much about who were the opinion leaders who had the interest in different areas.

Dario: So, the collaboration wasn't first envisioned as a whole and then divided in groups?

Lara: No, no… It was very much grass-roots, bottom-up development.

***Three phases of editorial process***

Dario: Cochrane Review Groups process and edit a large number of systematic reviews during all stages of their production and in all areas of health care interventions. How are the editorial activities and processes organized in Cochrane Review Groups?

Lara: Editorial processes in Cochrane Review Groups basically flow through three phases. There is a title registration phase, then the protocol development and publication of the protocol in the Cochrane Library, and then development of the actual review and the publication of the full review in the Cochrane Library. At the title registration phase, the authors would determine which of the 52 different Review Groups the title belongs to. Each Review Group has a title registration form, which they ask the review authors to fill in, addressing the PICO question – what population are you interested in, the intervention, the comparisons and the outcomes – and also providing the Review Group with additional information about the team of authors. The editorial group will then evaluate the title, determine whether or not it fits in their scope, and whether there is an overlap with other registered titles. Once the title is approved by the editorial group, it gets registered and a version is put in Archie, the central server used to manage the reviews across all the 52 review groups. And once the title is registered, the author team moves on to prepare a draft protocol and check it into Archie. The checking-in process informs the managing editor that the protocol is ready for the editorial peer review. And I guess here some groups might differ. We in CMSG do an in-house editorial check of it first, so the managing editor reviews the first draft. And if there are some major things that need to be addressed, they will ask the authors to address them before the draft is sent to peer review. And in our group the protocol goes internally to our trial search coordinator, our statistical editor, our consumer editor who will then send it to one of our consumers, and it goes to our internal subgroup facilitator, who has the specific disease content expertise in that area (e.g. for rheumatoid arthritis, gout, osteoporosis, osteoarthritis etc.), and then it goes to two external peer reviewers.

Dario: And that is only for the protocol… The same process is later repeated for the full review?

Lara: Exactly. And whenever we get the reviewers' comments back, we go through them to check if there is anything in these comments that does not meet our editorial standards. In that case, we would just ask the authors to disregard that comment. Then we send that version, along with the comments from those peer-reviewers to our coordinating editor, so that coordinating editor has a chance to read the first draft and have a look at all the comments the peer reviewers have suggested. And sometimes the coordinating editor gives some additional comments. We send that all off to the authors, and they have three to four weeks to make the revisions, and send it back to us. We ask them to respond to each point, as most other journals would do, and we review these revisions. Once we decided it meets our editorial standards and is ready for publication, then we send it for copyediting to the Wiley editing service.

Dario: Al, is there anything specific in your group in this regard?

Al: There are two areas where we are different. First, because our group addresses the delivery of care and effective practice, our target audience is different. We are establishing connections with policy-makers and people who would be using our systematic reviews. The other difference in terms of the process is that we assign one of our editors initially to be the contact editor. This editor liaises directly with the authors' teams once the title is registered, and he or she becomes a mentor or facilitator of the review process, working directly with the team. And then they will contact the managing editor once the contact editor is happy with the protocol. I would begin the peer review process. At the review stage, we we would assign a referee editor to work on the review, because we feel at this point the contact editor has been working with the authorship team for too long and may be too close to the reviewto be able to step back and evaluate the peer review comments appropriately. So, our team of editors would have some systematic reviews for which they are contact editors, and others for which they are referee editors. The referee editors look at the peer review comments, feed them back to the authors, and reevaluate to see if they have been addressed or not,or whether the authors justified their decision not to address them.

***Not just accept or reject***

Dario: It seems that in many aspects Cochrane Review Groups function similar to the editorial team of a typical scientific journal?

Al: Yes. But the big difference is that journals get a project after it is completed, whereas with Cochrane reviews we start working with authors at the title stage. They are mentored all the way through, both by the managing editor and the contact editor. So, once we have accepted the title, we expect to take it fully through to publication. The journals, on the other hand, will look at the article at the end and make a decision whether to accept it or not. I think this is a major difference in the process.

Lara: Yes, it's not that we just accept or reject. If we accept a title, then we will work to eventually get the full systematic review published.

Dario: If I understand correctly, the coordinating editor in a Cochrane Review Group has the role of the editor-in-chief in a regular journal?

Lara: Yes, sort of the Editor-in-Chief of each review group.

Dario: And then what is the role of the Editor-in-Chief of the Cochrane Library?

Lara: His role is more to oversee the quality… That all the systematic reviews published within the mandate of the Cochrane Collaboration are meeting certain minimum standards of quality. Review Groups do differ a bit in the methods that they might follow, but, there should be minimum standards, and one of the key roles of the Cochrane Library's Editor-in-Chief is to ensure this consistency across groups. And also, because people reading Cochrane Library don't necessarily understand the fact that there is 52 different groups working sort of semi-autonomously, we want to be able to present a consistent face to the users of the Cochrane Library.

***Branching out***

Dario: Al, both you and Lara are the managing editors of your groups. Do all the submitted titles, protocols and reviews go through your hands?

Al: Yes, they do. But, some groups – like both Lara's and my group – have satellites. So it is potentially possible, at least for our group, that the submission goes to a different managing editor. We actually have a managing editor based in Australia, and another one based in Norway. If a group does not have a satellite, , then it would only have one managing editor. But, yes – we're the first point of contact, when an author has an idea of the project they want to do, they e-mail the managing editor.

Dario: And how they decide which managing editor within a group should they contact?

Al: Depending on how it is structured. Our satellite in Melbourne, Australia, provides support to authors in the Australasian region. But our Oslo satellite focuses on supporting the production and updating of Cochrane reviews that address health systems questions that are relevant to low and middle income countries. So, there is some variation in how satellites function and who they support. But, obviously they are very beneficial, because they are spreading the workload around, as well as increasing our profile around the world. The satellites have funding, usually from a research organization. So the managing editor is actually a staffed position. We actually hire based on our research funding. So, even though I'm employed by the University of Ottawa, my main task is to work for the Cochrane Collaboration.

Lara: We would help Australasian authors to contact our editorial base in Australia which is responsible for Australasian authors, as well as content areas of soft tissue disorders. We are also actively looking to establish a new satellite.

Dario: That brings me to the next question – how are the editorial teams formed? How are people appointed to be editors in Cochrane Review Groups?

Al: Our (non-managing) editors do this either on their own time, or as part of their academic role in their respective institutions.

Dario: What are the qualifications required for a Cochrane Review Group editor?

Al: Editors are generally those who have authored at least one Cochrane review, preferably as the lead author. And they need to have experience in the content area. It's not a decision that is taken lightly.

Lara: Our expectations are quite similar. We have been adding new people to our editorial teams during the last couple of years. Those are the people who have expertise in the area, have done a good systematic review, have a methodological expertise. And you also want people who have the good credentials. Someone who is well recognized. And that is a decision that the editorial team would take together.

***Working with RevMan software***

Dario: All authors write their protocols and reviews in RevMan software, which makes their submissions much more uniform and structured than submissions in most other scientific journal. How this affects the editorial work in Cochrane Review Groups?

Lara: I think it is really helpful to have such a structured program that helps authors, especially new authors, walk through exactly what is needed. They have standard headings to help structure the review, but there are also optional ones, and that just prompts the authors to think what we expect them to consider when they are writing their background or discussion. I guess for some people the downside is that it's new software, you have to download it and learn how to use it. Actually, RevMan has improved tremendously since the first version years ago, and I think it's much more user friendly in the latest version.

Al: I think we have seen in the literature that structured reporting is recommended for articles. The approach in RevMan allows authors to do that very easily. And it is also really easier for us in terms of the editorial process, because we know where we should look for certain required elements, and so it's easy to find them. Especially with some new components that we are starting to include in the Cochrane systematic reviews, such as risk of bias assessment, summary of findings table. The only real downside is getting familiar with the software. Some people seem to have fear because it's new, but once they start using it, it's really straightforward.

***Helping the authors***

Dario: What are the challenges and rewards of working as an editor in the Cochrane Collaboration?

Al: It is rewarding to work with people from the title registration stage and to see these systematic reviews come to fruition. So, you can actually see people develop skills and expertise, you understand more about the struggles they have gone through to get there. And it's a good feeling to be able to help people and just see them come along, start with a title and have a general idea of what they're doing, and finish with a very good product at the end. But I think that's also one of our biggest challenges. Because, when you get a title proposal, you are trying to get a sense of how much help people would need.

Dario: What forms of help can you actually offer?

Al: If someone sends a title, our expectation is that at least one member of the authors’ team has done a review before or at least that they would attend a workshop to get some training in producing a Cochrane review. Still, often times questions come up from authors about the eligibility of studies, or about extracting data, how to do quality assessment, how to interpret some of the items in the protocol or review. Some review authors – we never hear from them until they submit the review; other people would contact us frequently throughout the process, asking very important questions about how to deal with some of the difficult issues. Or they would contact the trials search coordinator, who is our librarian and will help with designing the search. So, it really depends on the team of authors.

Dario: And do you help authors in finding other people who could join their review teams?

Lara: Sometimes authors ask for that, if they feel that they need some other person with a different expertise. On the title registration form we ask if there is somebody in the team with statistical expertise, with content expertise, we offer librarian and methodological expertise… So, if the authors have trouble finding somebody, we try to put them together, and occasionally we have been successful. And sometimes, out of the blue, two different groups of people from two different parts of the world inquire about the same topic at the same time. And you think – wow, how did that happen? So, we try to put people together. Or people have just registered the title, and somebody contacts us with the same title, so we say – well, this other team might need help, we will contact them, link them up. It doesn't always work out, but occasionally it does.

Al: For example, when someone is looking into reimbursement scheme or a delivery of care scheme, and all the members of the review team are from one country –the international perspective is not taken into account. For example, the important issues in Canada may differ from the important issues in the UK or in Sweden. So we would encourage the authors to consider inviting international collaborators. We could encourage them to search the literature and see who has published in the area. Or we might say – you may want to contact so and so from the USA, because they have done some work in the area and they can help you to provide the North American perspective. And usually that's well received. We would probably also consider that when we come to the peer review stage. Because if the team doesn't appear to have an international perspective, we would find international peer reviewers who could look at it and say – yes, but that's not how the things are done in another region.

Dario: Can you think of any other challenges in your editorial work?

Al: Other great challenge is the expectation that the Cochrane systematic reviews should be updated every two years. And I think that's a very good goal to have, but it's also a challenging goal to reach. Because many authors finish a review the first time and need to be encouraged to revisit the review for the update. The Cochrane Collaboration has started to evaluate the whole updating process and what is the best way to approach that challenge.

Lara: I think another challenge is that Cochrane Collaboration is a volunteer-based organization. The majority of people is doing this without funding for specific reviews. So people are doing this in their evenings and weekends, maybe on a sabbatical, or if they take a couple of weeks of holidays. You know that people want to do the systematic review, but it can be hard for them to find time to do it.

Dario: Thank you very much!

1. In the Cochrane Collaboration, the term “review“ usually refers to systematic reviews as a specific type of research design or article. However, the same term can refer to the editorial process of peer-reviewing, also known as “refereeing“. Potential confusion stems from the fact that in the Cochrane Collaboration, the product of the editorial process (including peer-review) is – a systematic review, and both peer-reviewers and authors of systematic reviews are often called simply “reviewers“. To reduce this confusion, the Collaboration encourages the use of the term ‘author’ to identify those who actually write the systematic review. [↑](#footnote-ref-1)