

Recruiting and retaining skilled authors for Cochrane Reviews

Discussion paper for the 2019 Governance Meeting in Krakow

[open access]

Paper prepared by the Cochrane Senior Management Team

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1 Background

1.1 Context

The Cochrane Council has raised the critically important issue of recruiting, training and retaining authors in order to support Goals 1 and 4 of *Strategy to 2020* as one of its priorities.

The Senior Management Team (SMT) have read the Council paper with interest and we agree with the Council that there are serious issues to grapple with in this area, and that it is critically important we collectively engage with this problem. We are all united in our desire for Cochrane to produce high quality, relevant reviews, so we need to work together to develop an environment which can be considered the best place to be writing a systematic review.

The appropriate next step to addressing this issue is to have an open discussion with Cochrane leaders at the 2019 Governance meetings in Krakow. To support that discussion, the SMT has drafted this paper to complement the Council's paper. The aim of this paper is:

- (1) to set out the initiatives that already exist in relation to attracting, supporting and retaining authors; and
- (2) to set out the relevant plans that are on the horizon or already included in Cochrane's 2019 organizational [targets](#).

We hope that this will provide a useful basis for an open discussion around this topic which can then shape the agenda for the coming years. There is clearly a lot of work that needs to be done in all areas if we are to provide the positive author experience that we aspire to.

1.2 Our vision for Cochrane authors

Cochrane should provide an excellent all-round author experience, so that Cochrane is seen as the place of choice for the best authors to produce systematic reviews.

1.3 How will we achieve this?

We want it to be highly desirable to work as a Cochrane author by providing a positive author experience based on the following four elements:

1. high quality training and support;
2. efficient, consistent and user-friendly editorial processes;
3. review production tools that facilitate writing a high-quality Cochrane review; and
4. acknowledgement/reward and career development for the authors.

1.4 Why is this important

Cochrane needs to continue to recruit and retain skilled and highly committed researchers to produce the increasingly complex Cochrane Reviews required by evidence users and decision makers.

To attract the best authors, it is essential that Cochrane's author experience and review production systems match or improve on the publication processes that are available in other high-profile journals.

In addition, some of those highly committed authors who write multiple reviews will go on to take positions of responsibility within the organisation and so this has a direct impact on our ability to develop our future leadership.

1.5 The external climate

When Cochrane started in 1993 the professional environment in which our authors worked was possibly more conducive towards volunteering their time to write Cochrane reviews. Now, this climate is different, with researchers needing to account for their time far more explicitly, and often needing to focus on activities where direct funding is available or the potential for impact or other non-financial benefit to the employing

institution is evident. This is a very different climate to 1993 and Cochrane needs to take this into account when considering expectations, and to do what it can to support such authors.

1.6 Can anyone be a Cochrane reviewer?

There has been a lot of discussion over recent years about the concept of being a volunteer author in Cochrane and whether “anybody” can write a Cochrane review. It is fair to say that writing a Cochrane review is a complex endeavour that requires a significant time commitment and skill level, so it is not a task that anyone can take on. That said, authors are not employed by Cochrane, and so even if they are professional systematic reviewers, they are still voluntarily working for Cochrane. For these reasons we find that the question of whether authors are volunteers or not over simplifies the issues. We judge that it is more important to focus on bringing clarity to the skills and commitment needed to be a Cochrane author.

2 What is already in place

Cochrane has been working on many complementary initiatives over the last three to four years which are relevant to author recruitment and retention. Here is a list of the highlights:

- Cochrane Interactive Learning is a comprehensive online course for preparing a Cochrane Intervention review, so that, regardless of location, authors can access high quality systematic review training. This is now being translated into Spanish.
- We have broadened the ways in which people can be involved through TaskExchange, Crowd and Translations, which allows people to work on smaller task-based contributions for Cochrane, so that people with limited time and experience do not end up taking on reviews inappropriately. This also provides a way to offer a developmental pathway for newcomers.

- Cochrane Membership makes it easier for people to find opportunities to get involved and provides recognition for the different contributions made.
- The Community Support Team provides timely email-based support to all community members who are working on Cochrane tasks.
- Cochrane has invested significantly in our review production tools, including Covidence, Cochrane Register of Studies (CRS) which includes associated machine learning capabilities to reduce author workload, and RevMan Web. We are establishing an integrated system of tools for review production, including automation of tasks and software (such as the RCT classifier) to facilitate the review production process. Ultimately, we want technology to either take over or facilitate some of the ‘heavy lifting’ involved in the review process.
- Cochrane Networks seek to promote more collaboration between CRGs leading to more consistent and high-quality editorial processes.
- A mentorship project between the Iberoamerican Cochrane Centre and CET aims to provide longitudinal support for Spanish speaking review teams, identify key challenges and tailor support to their needs.

3 Attracting the best authors

Cochrane needs to achieve two goals that on first glance might appear to be contradictory. Firstly, we need to attract experienced and skilled author teams. Secondly, we need to attract, nurture and retain less experienced, less skilled individuals into Cochrane and provide an environment where they can develop the skills and experience required. These two goals can both be achieved but it will require changes to the way that author teams are constructed in many cases, although we

believe that there are models of excellent practice already within Cochrane that can be used as a template.

This could mean, for example, that less experienced individuals might be incorporated into more experienced teams and invited to take defined roles under supervision. Ideally, all review author teams would include a mix of people with different but relevant skills, and varying levels of experience, so that inexperienced authors can be mentored through the process whilst making whatever contribution they can, consistent with ICMJE guidance on authorship.

To ensure we attract the best authors we need to create transparent processes for registering a review title; set very clear expectations of what it takes to be a Cochrane author and match these with expectations that the authors can have of Cochrane; provide new ways for integrating young and inexperienced authors into teams where they can develop; and be confident in directing those who aren't suitable to be authors to other initiatives within Cochrane that require less time, skill or experience.

There are now many ways in which people with limited skills and experience can volunteer to be part of Cochrane. These opportunities are outside of the authoring process, and we should not be shy about directing people with limited skills to these initiatives. This includes task-based activities available through our citizen science platform, Cochrane Crowd, or our task sharing platform, Cochrane TaskExchange. The nature of tasks appropriate for those with limited skills, experience or time include translation, peer review, screening and dissemination tasks.

Planned initiatives relating to attracting authors:

3.1 Review the entry process for new author teams to ensure that it is fit for purpose, equitable and transparent.

The following elements need to be considered as part of this initiative, and have included in the first draft of an Editorial Charter, which was promoted by the Editorial Board and is a 2019 strategic [target](#):

- The process for applying for a priority or researcher led title should be fair and transparent, and consistent with the need to ensure geographic, linguistic and gender equity in decision-making processes;
- The fast track process needs to be contextualised as part of our broader submission process;
- The information we have available on completed learning and previous Cochrane contributions should be used to provide insight into the competency of an author team.

3.2 Review of expectations of author teams

The following elements need to be considered as part of this initiative:

- Creation of defined roles on author teams, such as junior author, first-time lead author, screener or data extractor, so that less experienced authors can be involved in a well-defined and supportive way that ensures quality in the review process whilst allowing for author development.
- Review expectations around skill level and time commitment needed to take on more complex reviews, e.g., Network Meta-Analysis, or Prognosis reviews.
- Development of an author's charter (and possibly an associated MoU) that sets out what Cochrane expects of authors and author teams (to align with the proposed editorial charter that sets out what authors can expect of Cochrane).

3.3 Encouraging young and inexperienced (potential) authors

We have already done a lot in this area with regards to introducing Crowd and TaskExchange which allow for a graduated introduction to Cochrane work where people can learn and undertake smaller tasks as they build their skills and experience. We are working on greater community engagement around these initiatives in 2019 to increase the opportunities available and to highlight how contributors can earn membership credit through these activities.

The '30 under 30' campaign¹ has been a great success, with dozens of nominations and lots of interest from young people interested in Cochrane. We are trying to formalise this into a young researchers' network to help those young people working in Cochrane to network and share learning. We would also like to create new developmental roles throughout the organisation, so that these people can be given responsibility under mentorship to help them grow as potential future Cochrane leaders.

In 2019, we are also working on a Cochrane student programme that will allow students to find out more about Cochrane and get involved in some discrete tasks. Raising awareness of Cochrane's work amongst this audience is valuable in its own right, but some of these may go on to be Cochrane authors as well. This working is building on the successful work around Students 4 Best Evidence.

4 Supporting authors working in Cochrane

Being an author in Cochrane can be challenging for many reasons, some of which are laudable but some of which are contrary to our purpose and principles. We have high quality standards and increasingly the questions that are most relevant to our users require complex or new

methods. We provide training on how to conduct an intervention review in many Cochrane Centres around the world, as well as through [Cochrane Interactive Learning](#). Anecdotal feedback from Review Groups suggest that often the training authors receive is not of sufficient depth, quality or duration to produce a high-quality review, and so there is a challenge to understand how face-to-face training can better meet the needs of our authors and how we can support authors on a more ongoing basis beyond individual workshops. This may take the form of mentorship of authors so that the support and training given can extend over a longer period of time. Training on other/complex methods is less well developed but needs to be considered as part of this.

Initiatives in this area:

4.1 Developing our training offering

- Train the trainer programme to improve training delivered in Cochrane (2019).
- Work on a new curriculum for authors that focusses on blending face-to-face learning with our online learning so that face-to-face time can be focussed on deepening learning rather than introductory systematic review skills.
- Exploration of mechanisms to deliver training related to content strategy priorities in a sustainable yet effective way: e.g., training on conducting prognosis reviews, Network Meta-Analysis or use of Clinical Study Reports. This includes, but is not limited to:
 - o online learning (e.g., the new Cochrane Interactive Learning Network Meta-Analysis module launched in March 2019);
 - o webinars;

¹ See <https://www.cochrane.org/news> for examples

- embedding learning in face-to-face workshops;
- supporting annual methods training events (e.g., Risk of Bias (ROB) 2.0 training event planned for July 2019).
- Supporting Centres and others providing training support to offer a form of mentorship over a longer period of time, rather than simply running regular introductory workshops. This might mean providing more in-depth training and support to a smaller number of Cochrane authors.
- Shifting the emphasis away from short workshops, such as how to write a protocol, which sets expectations that the organisation cannot meet, and instead focus on training *users* of evidence not just producers.

4.2 Improving our support structures

- We introduced a Community Support Team in 2018 which provides first line support to all community members. In 2018, the team answered 2,688 support enquiries in areas such as tech support, membership enquiries and training.
- In 2019 we will be launching a new ‘Methods Support’ function which will build on this work to provide an escalation point for queries that are more complex in nature and need specialist methodological support.²
- We are working with the Iberoamerican Cochrane Centre on a pilot project to understand how we can support Spanish-speaking authors to produce high quality reviews. This involves mentorship, methods support and language support. By the end

of 2019, this will be complemented by a full translation of Cochrane Interactive Learning into Spanish.

4.3 Improving our technology environment / eco-system

- We are working towards an integrated suite of tools to support Cochrane authors, from the Cochrane Register of Studies Web tool through Covidence and then RevMan Web and partner tools like EPPI-Reviewer, MAGIC App, and GRADEPro GDT. Project Transform produced machine learning tools (Evidence Pipeline with a Centralized Search Service) to speed up the early stages of review production and through our investment in Covidence we have a streamlined tool for intervention reviews. Once this is fully connected with RevMan Web, we will have an ecosystem that supports authors to produce high quality reviews in a more efficient and streamlined “ecosystem”; and we hope that free access to these tools will be a real benefit of working with Cochrane.

4.4 Improving our processes

- Our editorial and other processes need to be reviewed to ensure that they are efficient and fit for purpose. In the past few years, Cochrane has worked on the development and delivery of several policies that relate to publication ethics and good editorial practice. These include a fair and transparent rejection policy, guidance on peer review, and also work to develop a scientific misconduct policy. In each case the implementation of policy has been carefully thought through to facilitate this for authors and editors. This work aims to improve the experience of working with Cochrane, and to create better, more consistent and transparent experiences for author teams. We have two

² This will be complementary to the support already provided by Methods Groups and the NIHR Complex Reviews Support Unit.

critical pieces of work in this area in 2019 which are both organisational targets for the year.

- We will be developing an [Editorial Charter](#) to outline what author teams can expect from Cochrane, which will set expectations around the equity, timeliness and efficiency of our processes.
- We will be reviewing options for a new [Editorial Management System](#) to improve the technological and process support that editors receive to do their work. It is important that we invest in this area if we are to match the experience that authors have with other publishers.

5 Acknowledging and rewarding our authors

Many authors only write one Cochrane review, which is a huge loss of resource to Cochrane and inefficient given how much we invest in our authors and the skills and experience they build up in the process. We would like more skilled authors to return and complete a second or further reviews and in doing so we would like them to support newer authors to build their experience. The key driver of this is the quality of the initial experience. Where authors judge that they have been supported appropriately and the process has been fair, consistent and efficient, they are likely to wish to return. Where that is not the case, return is less likely.

Initiatives in this area:

5.1 Acknowledgement through membership

- The membership scheme seeks to acknowledge and reward authors with membership status.
- We are introducing ways in which authors can download certificates of their learning and contribution to Cochrane to use in their professional profile, so that what they are doing in Cochrane can easily be used as continued professional development and so serve other purposes for the authors.

5.2 New opportunities to engage people beyond their first review

- We would also like to introduce other opportunities that assist authors with their career progression to make Cochrane a more attractive long-term prospect for them. This might include a broader range of ‘junior’ opportunities: e.g., developmental positions as editors leading to being accepted as a full editor in a Group; or perhaps time-limited opportunities to allow someone to gain experience in different areas. We need to gain a better understanding of how Cochrane can be a part of someone’s career so that we can respond with appropriate opportunities.
- We would also like to consider a broader range of prizes and awards that can acknowledge and motivate authors better.³

6 Conclusions

The Cochrane Council has rightly highlighted the existential importance to Cochrane of improving the author experience, and putting in place policies, structures and processes that help to fulfil the over-riding goal of attracting, nurturing and retaining high level researchers and scientists in our community. There is a lot of work ongoing in the area of author experience, and a lot of these threads will come together under

³ This would be in addition to new prizes and awards in areas other than authoring where there is an even greater need for additional recognition.

the work of the new Editorial Charter and subsequent Author Charter which set out mutual expectations when authors work for Cochrane.

These are critical issues that Cochrane needs to address, and there is a lot of work to be done in all the areas discussed above. Many of the points raised in these papers, including the development of the respective Charters, will require input from the Council, Board and wider community to ensure that they meet the needs of everyone working in Cochrane. We will need to use the complementary skills and functions of all Cochrane Groups to create an integrated system if we are to create this positive author environment and consistently high-quality outputs.

We hope this discussion paper serves as a constructive starting point for further discussion and suggestions, and we lay out below what we think are some of the key areas for discussion.

7 Key Discussion points

Have we got the right elements in our author experience vision?

- high quality training and support;
- efficient, consistent and user-friendly editorial processes;
- review production tools that facilitate writing a high-quality Cochrane review; and
- acknowledgement/reward and career development for the authors.

We need to set clear expectations about what it takes to be a Cochrane author and incorporate this into an author charter (to accompany the editorial charter that sets out what authors can expect of Cochrane)

- What are the expectations or standards required of author teams?
- What level of skills are required?
- What are the roles in an author team, e.g. junior author, lead author, mentor, screener, data extractor?
- How do we embed mentorship into author teams?

Overhaul entry process to becoming a Cochrane author

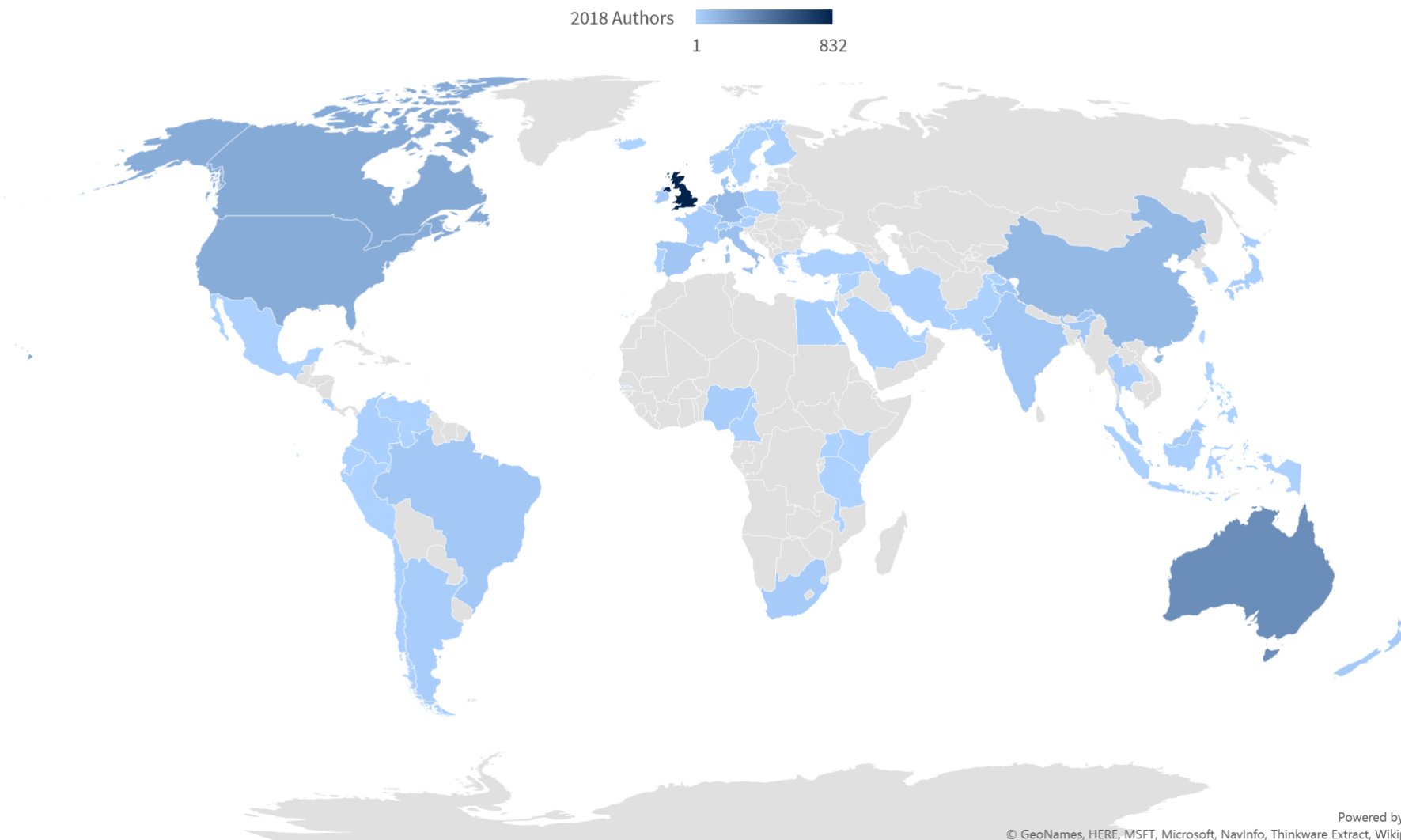
- How should we transparently advertise priority titles available?
- What are the processes for author led topic suggestions?
- How do we incorporate the fast track process as an alternative entry route?
- Could we have a single online portal for expressing interest in a title, whether researcher-led or from a Group's priority list?
- Should all reviews go through a competitive process to attract the best teams?
- Should having a mix of experienced and inexperienced/young authors be a pre-requisite for author teams so that mentorship is firmly embedded in our authoring process?

Author training approach

- What key skills are authors missing currently?
- How can other Groups complement the role of CRGs by providing ongoing training and support locally in addition to individual workshops.

8 Appendix 1 – data on authors of published reviews and updates in 2018

Geographical distribution of authors of reviews and updates in 2018



Data for the above graphic is presented here in tabular format.

This is the number of authors per country for all reviews and updates published in 2018

Country	2018 authors
UK	832
Australia	322
Canada	190
USA	181
China	119
Netherlands	116
Germany	114
Italy	86
Denmark	59
Spain	57
India	53
Brazil	46
Switzerland	44
Ireland	42
New Zealand	37
South Africa	32
Belgium	30
Malaysia	28
Argentina	26
France	25
Japan	24
Singapore	19
Nigeria	18
Norway	18
Thailand	18
Finland	15
Israel	15
Chile	13
Austria	11
Korea, South	11
Lebanon	11
Poland	11
Colombia	10
Egypt	9
Greece	9
Iran	9
Pakistan	8

Sweden	7
Indonesia	6
Mexico	6
Saudi Arabia	6
Hong Kong	5
Ecuador	4
Turkey	4
Cameroon	3
Syrian Arab Republic	3
Venezuela	3
Bahrain	2
Czech Republic	2
Kenya	2
Peru	2
Portugal	2
Taiwan	2
Uganda	2
United Arab Emirates	2
Barbados	1
Costa Rica	1
Cyprus	1
Gambia	1
Iceland	1
Malawi	1
Malta	1
Philippines	1
Qatar	1
Tanzania	1

Total number of authors for review and updates published in 2018:

2,741 authors

2018 new reviews = 341

2018 updates = 285