The future of evidence synthesis in Cochrane

A report on community engagement

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The future of evidence synthesis project represents a way for Cochrane to address five key challenges facing the organization:

1. Our funding is less secure, and we are committed to open access, which will reduce our income.
2. There is more competition in the evidence synthesis market, so we need to demonstrate our value.
3. Cochrane has grown rapidly and organically, becoming inefficient and hard to understand.
4. We need to be agile and adapt quickly to new ways of accessing, using, and sharing information.
5. Our range of evidence synthesis products must be affordable and able to sustain Cochrane into the future.

We believe the responses to these challenges lie within the organization and the wider Cochrane Community. Over the past four months we have been engaging with our community – harnessing their expertise and ensuring their voices are heard. This report outlines our findings to date.

It was felt by most that the engagement process had been inclusive and that people across the Community had the opportunity to comment and therefore to input into the future of Cochrane. Our findings reflect a vibrant and diverse community that genuinely cares for the future of Cochrane and believes in its mission.

This sense of shared goals guided the discussions and shaped the feedback received. Although there were differences of opinion on how to get there, all participants shared a wish for a sustainable, quality-driven and relevant Cochrane.
Feedback mechanisms included:
Future Cochrane website and survey
Cochrane Community workshops: series of seven workshops covering
1. Future of evidence synthesis – introduction x 2
2. Meeting global health and care challenges
3. Structure, funding and accountability
4. People and expertise
5. Collaboration
6. Central Editorial Service and publishing

Dates of workshops:
Sept 29 2021
Oct 8 2021
Oct 11 2021
Oct 14 2021
Oct 18 2021
Oct 21 2021
Nov 2 2021

Survey dates: The survey which was open to the Cochrane Community ran from the Sept 29 – Nov 10 2021.

For more information please see links below:
- Recordings of the community engagement workshops + compiled feedback from the breakout groups during each workshop – https://community.cochrane.org/organizational-info/plans/future-evidence-synthesis-cochrane/community-engagement-workshop-series
- Question & Answer Summary compiled from the questions and answers given at the September 2021 Join the Conversation webinar and the Community Engagement Workshop Series – https://community.cochrane.org/organizational-info/plans/future-evidence-synthesis-cochrane/qa-summary
- Formal papers received throughout the community engagement period – https://community.cochrane.org/organizational-info/plans/future-evidence-synthesis-cochrane/papers-cochrane-community
Engagement figures for the workshops.

Workshops were well attended by internal stakeholders across the Community. The format of the workshops included a presentation, followed by facilitated small group discussions and a final plenary session to bring the findings together.

On average, across the seven workshops representatives from Review Groups made up 56% of the attendees, with CET and Geographic Groups at 13% and 14% respectively.
The Future Cochrane website has been a major source of information for the community during the process.

Engagement figures for the Future Cochrane website.

Heaviest usage was from the UK followed by the US.

- Others: 33%
- UK: 35%
- Australia: 6%
- USA: 10%
- Finland: 5%
- Canada: 5%
- NL: 6%
Engagement figures for the Future Cochrane website

Visits to the website were consistent throughout the engagement period. There are definite peaks around the launch, the dates of the workshops, and prior to the close of the survey (10 Nov).

Visits peaked on the September 29 when the survey opened and November 9 just before the closing date of the November 10 2021.

In total there were 2,236 visits to the site during the consultation period.
Engagement figures for the survey.

The engagement figures for the website mirrored those of the workshops. Once again the Review Groups were the largest group represented, but over 50% of the responses came from other areas of the Cochrane Community.
Subway map - our route to change

1. Strategy for change
   - Key principles
   - Mission & Enabling objectives

2. Global challenges
   - Major health and care challenges

3. Stakeholders
   - Meeting the needs of our most important stakeholders

4. Review development
   - Distinction between Cochrane as producer and as publisher of evidence

5. Evidence Synthesis Units
   - 8-10 skilled and outward looking ESUs

6. Direct pathway to publication
   - Simpler, direct, journal-like pathway

7. Central editorial service
   - Centrally managed editorial process for reviews

8. Publication
   - Moving to shorter, journal-like format
Cochrane’s Strategy for Change is an organizational strategic framework guiding Cochrane from 2021 through to 2023. It focuses on the changes we need to make to remain sustainable.

This new model for synthesising evidence in Cochrane is anchored firmly in three strategic goals:

- Producing trusted evidence
- Advocating for evidence
- Informing health and care decisions.

These goals are underpinned by four enabling principles, that must form the foundation of any future production model.

**Identified external challenges include:**

1. Changing needs and expectations of funders
2. More competition and lack of differentiation from others in the field
3. Organic growth which has resulted in inefficient working practices
4. The need for agility, diversity and culture shift so the organization can fully harness the benefits of new ways of working
5. Affordable and relevant evidence synthesis products that meet the needs of the marketplace and secure Cochrane’s future.
Across the globe, people and communities grapple with multiple health and care challenges. Defining a new model for evidence synthesis in Cochrane enables us to respond to these pressing challenges in a different way. While this represents an important change to the way we prioritise Cochrane evidence syntheses currently, it also offers new opportunities to deliver on our vision of better health for all.

**Opportunities**
- Having a global challenges framework makes it easier to interact with stakeholders by providing a more transparent overarching framework that is understandable to both internal and external audiences. The framework highlights Cochrane’s relevance by tackling the most pressing global issues, and is inclusive of other groups within the Cochrane community such as the Fields.
- Several Fields are already engaged in the global health and care challenges identified in the new model and/or have experience in knowledge translation and evidence-based medicine advocacy so this is good basis from which to build.

**Challenges**
The global challenges framework needs to reflect:
- The fact that health and care service delivery is generally organised around sub-specialities
- Recognition of the local expertise of Cochrane’s volunteer community within a global framework.

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**What global health and care challenges should Cochrane be focusing on? Please rank the five most important to the top. The rest will have no bearing.**

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic conditions</td>
<td>167</td>
</tr>
<tr>
<td>Cancer</td>
<td>128</td>
</tr>
<tr>
<td>Climate change</td>
<td>95</td>
</tr>
<tr>
<td>Maternal &amp; child health</td>
<td>95</td>
</tr>
<tr>
<td>Infectious diseases</td>
<td>87</td>
</tr>
<tr>
<td>Healthy ageing</td>
<td>80</td>
</tr>
<tr>
<td>Co-morbidities</td>
<td>75</td>
</tr>
<tr>
<td>Health systems</td>
<td>70</td>
</tr>
<tr>
<td>Diversity &amp; equity</td>
<td>58</td>
</tr>
<tr>
<td>Disabilities</td>
<td>47</td>
</tr>
<tr>
<td>Social care</td>
<td>47</td>
</tr>
</tbody>
</table>

- 11.3% Cancer
- 14.3% Global emergencies
- 27.1% Chronic conditions
- 10.8% Climate change
- 10.8% Maternal & child health

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We asked respondents in both the surveys and the workshops whether there were global health care challenges missing from the previous list.

Mental health was by far the most popular choice for respondents, followed by dementia.

Digital health and emerging technologies were areas that respondents would like to explore further.

There were several nominations stemming from issues around civil unrest, including food security and migration.

Public health, prevention, planning, epidemics and pandemics also featured, as did ‘over treatment,’ use of antibiotics and drug resistance.
The importance of building long-term relationships / partnerships with funders was acknowledged, as was the (enhanced) role of the Fields who currently hold many of these relationships. The new model will provide opportunities to build partnerships on local and global levels, recognising the need to secure central funding and sustain existing local funding sources. There was a sense that Cochrane needs to be clear that the journey is achievable and sustainable and that funders may want to pay for reviews, not infrastructure costs.

Opportunities

The proposed model presents an opportunity to make Cochrane an organization that:

• Is easier for people outside to understand and contribute to
• Develops new and creative partnerships but continues to work with existing allies and members of the community
• Responds quickly to stakeholder needs
• Collaborates with academic institutions, government bodies, and guideline developers to produce more usable reviews faster, by ensuring alignment of priorities and PICOs
• That has more diverse stakeholders and therefore more funding options.

Challenges

• Being funder-led
• Managing relationships with too many stakeholders.

If Cochrane diversifies its sources of funding, which new sources do you think would be most important?

1st National or regional governments
2nd Non-governmental organizations
3rd Not-for-profit charities
4th Major donors
5th Community gifting

Most important

Consensus

57.3%

1st

National or regional governments

46.7%

2nd

Non-governmental organizations

41.2%

3rd

Not-for-profit charities

34.2%

4th

Major donors

66.3%

5th

Community gifting

Ranked 5th
Consumers, clinicians and Policy Makers were felt to be the most important stakeholders for Cochrane to focus on moving forward. See Fig 1.

They were also felt to be the most important groups to help Cochrane define the list of global challenges that will set the direction for the organization moving forward. See Fig 2.

This result is likely due to the nature of the existing relationships of the respondents, ie they have closer existing ties with the audiences they have prioritised.

Consumers, clinicians and policy makers will continue to be priority audiences for Cochrane, but as we transition to our new ways of working we would expect to extend our focus to other groups such as funders, guideline developers and policymakers.
We asked survey respondents whether there were other sources of funding that they thought were important.

Top results included: Foundations such as Gates Foundation, large funders such as EU, WHO, partnerships and collaborations with scientific committees, research councils. Pharma companies were mentioned by a few respondents, but with strict conditions imposed.

Approaching individuals for donations and legacies, asking for donations to consume resources (eg subscription or one-off).

Diversification / commercialisation suggestions included charging for training, consultancy, organising paid for events. Charging for publishing reviews was mooted by some respondents.

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Individuals</th>
<th>Commercialisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>Legacies</td>
<td>Charging for publishing</td>
</tr>
<tr>
<td>Scientific committees</td>
<td>Individual gifts</td>
<td>Events</td>
</tr>
<tr>
<td>Clinical societies</td>
<td>Donations and subscriptions</td>
<td>Training</td>
</tr>
<tr>
<td>National research councils</td>
<td>Microgifts</td>
<td>Consultancy</td>
</tr>
<tr>
<td>WHO, Gates Foundation, NGOs</td>
<td>eg Wikipedia funding model</td>
<td>Charging for reviews</td>
</tr>
<tr>
<td>Other synthesis organizations</td>
<td></td>
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The proposed model draws a clearer distinction between Cochrane as producer and as a publisher of evidence synthesis, making the evidence synthesis phase more iterative, recognizing the skills of contributors and providing clear mechanisms for how expertise can be sought, incorporated and recognized.

Consultation feedback highlighted the following:

Opportunities
The new model could:
• Foster early career researchers / mentorship
• Build capacity by providing dedicated resource for novice author teams
• Provide more opportunities for data sharing
• Anticipate challenges in the wider healthcare evidence ecosystem and allow for innovation in terms of:
  • a) types and source of evidence; and
  • b) developing and evaluating new methods to speed up production
• Create a wider range of evidence products that meet a more diverse range of stakeholder needs
• Build on volunteer support and existing expertise, retaining and incentivising groups within the Cochrane Community.

Challenges
• Loss of clinical, consumer and methods expertise within our current volunteer network.
Under the proposed model the existing Cochrane Review Groups (CRGs) will be replaced by larger, multi-disciplinary Evidence Synthesis Units (ESUs). These units will be outward-looking and will comprise of individuals highly skilled in evidence synthesis methods. It is envisaged the groups will work closely with Geographic Groups and Cochrane Leadership to leverage existing funding streams and connections.

Consultation feedback highlighted the following:

Opportunities
- The creation of thematic “groups” and the Evidence Synthesis Units working together would retain the content expertise and the some of the structures we have currently – giving us continuity in the transition period.
- Offer better accountability within ESUs to stakeholders and funders.

Challenges
- Risks of a global change in structure to stable, funded CRGs outside the UK (where there are different funding challenges)
- How we organise things internally is not necessarily how outputs are structured or even exactly how we present ourselves to the world.
- The new units may be too large, lack clinical focus and become disconnected from local clinical/consumer communities.
- Needs of patients and patient support groups are different in different geographical locations.
- Methods groups could be too stretched in the proposed structure.
- Ensuring a diverse range of skills and voices in the new units.
- Duplication of efforts across multiple generic Evidence Synthesis Units.
- Loss of skilled staff currently working in the Review Groups.
- A small number of Evidence Synthesis Units (i.e., 8-10 units) may not capture the rich diversity of many current teams and their proven capacity for attracting direct funding.
- Need mechanisms for people to feedback on how units are working.

Possible solutions
- Consider local/country level hubs so evidence syntheses can be relevant at country level.

What actions do you think would make the most impact on streamlining evidence synthesis in Cochrane?

1st
Streamline conduct and reporting standards

2nd
Introduce a distinction between the main content and supplementary materials

3rd
Revise our policy on updating

4th & 5th
Weak consensus

6th
Move to more flexible heading structure

most impact ➔ least impact
We asked respondents which organizations could Cochrane partner with to expand into new areas of evidence synthesis.

The results are shown in the graph, Joanna Briggs Institute (JBI) were cited by the most respondents, closely followed by Campbell Collaboration.

Global agencies were third in popularity including WHO, Gates Foundation and Wellcome Trust.

Academic institutions including universities, research schools and Health Authorities were the final major groups cited.
We asked respondents what proportion of Cochrane funds should go to the following aspects of producing evidence synthesis?

Top priorities included paid roles at the Evidence Synthesis Unit level, delivering training and support and improving technology and tools in order to facilitate the production of high quality, relevant, timely and audience focused evidence synthesis products.

Career progression, mentoring and support were cited as clear incentives and ones that would encourage new experts into the community - increasing diversity and breaking down organization siloes. It was felt that involving more people at the start of the process would make better use of the available talent pool within the Community and result in a fresh and relevant perspective.

The working practices employed during the COVID-19 pandemic were cited as examples of this new way of working.
We asked respondents their thoughts on how to best retain and incentivise Cochrane’s topic and methodological experts in the new evidence synthesis model.

Responses included:
- Providing the best experience for teams and individuals within the Community
- Maintaining and building on existing relationships within and outside the Community
- Collaborative groupings of experts, better definition of roles and rewarding / providing incentives to authors and other members of the Community.

Cochrane’s reputation and the strength of the Cochrane brand remained an incentive for many. Enabling academics to build /cement their reputation within their field was also felt to be a strong draw to publish with Cochrane.
The alternatives proposed to the new model, as it was presented to the Cochrane community, focused primarily on the need to preserve contributor skills and expertise:

A “bottom-up approach” suggests that the Evidence Synthesis Units should focus on methods and quality assurance and that “Cochrane Collaborating Hubs/Centres” would produce the evidence. These Hubs/Centres would be self-managed, generic, or topic-focused, and independently funded. There would be no limit on the number of Hubs/Centres that could be registered and all reviews would be submitted to a central editorial service. (Full proposal available here)

A proposal to replace Fields and Cochrane Review Groups with a small set of ‘clusters’, comprised of number of smaller topic groups, which sit alongside the Evidence Synthesis Units (ESUs), and which are accountable to Cochrane. The clusters / topic groups would ensure that the ESUs have access to the right content expertise but they could fulfil other roles as well, including evidence synthesis authoring. (Full proposal available here).
The proposed model includes new pathways for author teams to submit their reviews directly to the Central Editorial Service. We envisage a simple, direct journal-like pathway – by simplifying the process we hope to attract authors of high quality materials that would otherwise not be published in the Cochrane library.

Consultation feedback highlighted the following:

Opportunities
- We could have more flexible routes to publication, commissioned and unsolicited reviews
- Direct pathway could work as a bridge for any groups that do have funding outside of the ESUs
- Supporting diversity and promoting innovation – allowing more non-standard formats/reviews to be published (those that fall outside of the interests or skill-sets of the CRG’s). It was felt that submissions would be judged on quality and interest early on in the process, reducing bias
- Providing a funding bridge for those groups who currently have funding as they transition to Evidence Synthesis Units
- Safeguarding Cochrane’s independence – mitigating the risk of being too funder-led, and ensuring non-commissioned evidence syntheses are published (even if they fall outside the interests of review groups/funders).

Challenges:
- Without centralised title registration there is a risk of research waste.
- Even with oversight it would not be a predictable pipeline for content.
- Making sure that reviews with smaller audiences/rare conditions don’t get rejected out of the direct pathway by the Central Editorial Service based on perceived low priority
- The Central Team could be “swamped” by low priority/low quality/duplicative reviews.
Under the proposed model the editorial processes for all evidence synthesis are managed centrally. From our experience during the pandemic, the advantages of a Central Editorial Service are improved efficiency, independence, greater range of approaches and adherence to quality standards. In the proposed model the service will manage the editorial process for both Cochrane Reviews submitted by Evidence Synthesis Units and those via the direct pathway.

Consultation feedback highlighted the following:

**Opportunities**
- Creating a “college of experts” – inside and outside the community to preserve existing expertise
- Retaining the services of CRG members/editors for continuity
- Accepting / receiving commissioned reviews from established organizations that have pools of experts already in place
- An ongoing role within the Central Editorial Service for Cochrane information specialists was also identified
- Relationships between authors and experts, increasing support for authors
- Increase the appeal of Cochrane through an open and transparent operating model editorial process
- Moving closer to the journal publishing model of other publishers.

**Challenges**
- Ensuring Cochrane retains its pool of experts in both methods and clinical content especially if they feel that their area is not adequately represented in the new structure.
- Ensuring that Cochrane has sufficient capacity to deal with increasingly complex reviews.
The way evidence is published and presented on the Cochrane Library is vital to ensuring Cochrane evidence is used widely and effectively. Moving to a shorter, more journal-like format would make our output easier to understand and more accessible, laying the foundations for future Cochrane Library developments designed to make our data more visible and attract new users.

Consultation feedback highlighted the following:

Opportunities
- Cochrane able to promote different forms of evidence syntheses
- Separating the manuscript and supplementary materials will enable Cochrane to produce materials that are shorter, easier to navigate, easier for authors to produce and for audiences to navigate.

Future outputs
- 55.7% All the below, plus other types of evidence syntheses (e.g., scoping reviews, gap maps)
- 21.2% The current range of systematic review types (intervention, DTA, qualitative, etc)
- 13.7% A wider array of more diverse systematic reviews
- 9.4% I’m unsure/undecided

Library formats
- 52.8% A single format, but structured or layered to present information relevant for different stakeholder groups
- 25% Different formats tailored to the needs of specific stakeholder groups
- 22.2% Current format but with improved navigation
Looking to the future

The video above contains the personal reflections from the Evidence production and methods directorate senior team. Click in the window to play the video.