

Cochrane Information Specialists Survey 2020

Report by the Cochrane Information
Specialists' Executive Committee.



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1 Executive summary

This report of a survey of Cochrane Information Specialists (ISs) in 2020 was prepared by members of the Cochrane Information Specialists Executive. The goals of the survey were:

- to identify the capacity of ISs working with Cochrane entities,
- to map their tasks and activities, and
- to evaluate their support and training needs.

The survey was sent to 113 Cochrane entities and received 84 responses (74% response rate). It updates a previous survey of ISs undertaken in 2008. The two surveys together provide a valuable insight into the changing role of the Cochrane IS over the last 12 years.

The survey responses allow us to map the demographics of the IS community, characterise IS tasks and roles, examine the maintenance of specialised registers across entities, and investigate the impact of Cochrane Networks on the IS community. ISs have also provided feedback on their training and support needs.

The survey provides a clear picture of the IS community, and from this, we have opted to present key findings as SWOT analysis, depicting the key strengths, weaknesses, opportunities and threats associated with the current situation.

1.1 SWOT analysis

<p>Strengths</p> <p>The IS community are a flexible group who have taken on new tasks and activities in the last 12 years (e.g., PICO annotation, social media activities)</p> <p>ISs have taken on more core editorial responsibilities in the last 12 years, writing, checking and peer reviewing search methods. In this sense they have become more embedded in editorial teams.</p> <p>Cochrane ISs have considerable experience, with almost three quarters having been in post for 6+years.</p> <p>The community can be characterised as keen to network and share best practice.</p>	<p>Weaknesses</p> <p>There has been a reduction FTE for the IS role over the last 12 years, while the number of tasks has increased. Lack of resources can lead to a tension between centrally assigned tasks and tasks that directly benefit the individual Cochrane entity.</p> <p>There is a lack of consistency around compliance with some desirable/mandatory tasks across the community (e.g., maintenance of specialised registers, peer reviewing, search support), which could affect the quality of the IS contribution to Cochrane and systematic reviews.</p> <p>Parts of the IS community are not well-funded for attending Colloquia or regional Cochrane meetings, resulting in inequitable access to training.</p> <p>Outside of CRGs, the tasks and responsibilities of ISs are not well defined.</p>
<p>Opportunities</p> <p>Cochrane Networks have increased the communication between Cochrane ISs and provide an opportunity for increased co-operation across CRGs. (So far, the only concrete example is peer review of search strategies.)</p> <p>Given the current IS environment of more time constraints and newly assigned tasks, the traditional tasks (e.g., handsearching) should be reviewed, and those tasks with the most impact and value should be prioritised.</p> <p>Many different approaches to maintaining specialised registers were identified in the survey. Developments in the Centralised Search Service (amongst other areas) should prompt a review of the purpose of registers and minimum standards/best practice in maintaining them.</p> <p>Better support for complex search methods needs to be created, including developing new search filters for retrieving reports of non-RCTs.</p>	<p>Threats</p> <p>UK ISs (and their entities) are vulnerable to changes recently announced in the NIHR funding programme.</p> <p>Around 50% of survey respondents believe there is a lack of career development opportunities for Cochrane ISs. This may have a detrimental effect on motivation within the community.</p> <p>ISs would like greater awareness of their role and recognition of their valuable contribution to the Cochrane community. The introduction of new tasks/software in recent years with little or no consultation with the IS community or their managers has created negativity.</p> <p>Not all Cochrane entities directly employ IS. Some use outside IS support, but others have no access to IS services at all. This raises concerns about the quality of search support offered to review authors as well as adherence to Cochrane methodological standards.</p>

The main report is structured into the following sections, with a summary of key points at the end where appropriate:

- Background;
- Survey methods and response rate;
- The Cochrane IS community;
- Cochrane IS tasks and roles;
- Specialised registers;
- Networks;
- Training and support;
- A comparison between surveys done in 2008 and 2020.

The full free-text responses to some of the questions and some additional data tables are provided in the appendices.

1.2 Key recommendations

Based on the survey responses which follow in the main report, the IS Executive would like to make the following key recommendations:

- Cochrane's Information Specialists (ISs) need **more visibility** in terms of their contribution to Cochrane and **more recognition** in terms of their professionalism and expertise; and they need to be made to feel valued within the Cochrane organization. One element could be pushing for IS co-authorship on reviews where they have provided substantial contributions to the work.
- Cochrane ISs have been asked to undertake an increasing number of tasks in recent years (e.g., PICO annotation). However, data from this survey shows that there is considerably less capacity in terms of person hours across the IS community than there was 12 years ago. Additionally, ISs and their line managers/entities have not been consulted before tasks such as PICO have been assigned. **In future, Cochrane Information Specialists' workload and limited hours should be considered before assigning new tasks centrally, and there should be strong lines of communication between the Cochrane Central Executive and the IS Executive/ line managers of ISs in Cochrane entities/ ISs themselves, in order to assess the impact and value of additional tasks.**
- The survey has clearly reinforced a known and now urgent issue: training and support is needed in complex searching techniques for identifying studies beyond RCTs for the standard intervention reviews. Support is needed with searches for qualitative studies, diagnostic studies, economic commentaries, overviews of reviews etc., including the need for clear guidance in undertaking these searches. There are new challenges, for example: text analysis tools for building search strategies, and developing pragmatic study flow diagrams for living reviews. **We suggest that methods support for ISs designing/undertaking non-standard review search methods would best be provided by a new, specialist post based in the Methods Support Team. At a minimum, we suggest that the Information Retrieval Methods Group (IRMG) consider the development of training and guidance resources to support ISs in these areas.** Training and guidance also should be coordinated with the topic specific methods groups.

- **A working group of stakeholders from across Cochrane should consider the value and purpose of specialised registers.** This survey shows that not all CRGs maintain a register, and their value should be re-examined in the light of the Centralised Search Service and CRS developments over the last decade. The working group should make recommendations on the future of specialised registers within the organization with the aim of establishing new guidance for ISs around specialised register tasks.
- Cochrane-specific information retrieval standards for intervention reviews have not been revised for many years. **To remain at the cutting edge of information retrieval methods, and to increase efficiency in searching for the most common type of Cochrane review, Cochrane should invest in commissioning research** evaluating the extent to which sources like MEDLINE and Embase still need to be searched to identify RCTs now that the Centralised Search Service regularly feeds into CENTRAL. Ideally, the output of this research would be clear guidance for ISs, e.g., that only top up searches of individual databases are needed due to the time lag with the CSS feed. Other areas that urgently need research to inform practice include whether tasks such as handsearching are still necessary.
- **More networking opportunities should be provided for Cochrane Information Specialists** The CIS Executive has recently implemented informal virtual meetings to this end. However, increasing the possibility of face-to-face meetings by providing funding to attend regional meetings, colloquia, or training would serve to strengthen the IS community and the dissemination of knowledge.

We seek support in implementing these recommendations, and welcome constructive discussions with others across the Cochrane community to help us shape the future of Cochrane IS roles.

2 Background

This report on the 2020 Cochrane Information Specialists (ISs) survey was prepared by members of the Cochrane Information Specialists' Executive.

The goals of the survey were:

- to identify the capacity of ISs working with Cochrane entities,
- to map their tasks and activities, and
- to evaluate their support and training needs.

This survey updates a previous survey of ISs undertaken in 2008 and reported in 2009. The two surveys together provide valuable insights into the changing role of the IS over the last 12 years.

Information Specialists provide the fundamental building blocks to Cochrane reviews, through their work to identify relevant studies to include. They are an essential part of the review production process with specialized, professional skills often based on Master's level qualifications. In addition to searching, they are also often assigned a wide range of non-review related tasks that are core to Cochrane's mission (e.g., maintaining specialised registers, contributing to the CENTRAL database, performing editorial functions such as writing, checking and peer reviewing search methods, PICO annotating reviews, knowledge translation activities, delivering training on search methods).

However, due to the decentralized nature of Cochrane entities, little is known about the IS resources available within Cochrane or compliance with mandatory tasks across the community. There is also a lack of information about the training needs of the IS community. These gaps in knowledge can pose problems when assessing support or training needs, and when planning changes in Cochrane workflows that affect the IS role.

For this reason, we sought to ascertain and analyse the current state of the IS community, our collective contribution to Cochrane, and the challenges we face.

Based on our findings, we make recommendations as to how our community can move forward to support Cochrane's Mission 'to promote evidence-informed health decision-making by producing high-quality, relevant, accessible systematic reviews and other synthesized research evidence.' (Cochrane, 2021).

We seek support in implementing these recommendations, and welcome constructive discussions with others across the Cochrane community to help us shape the future of Cochrane IS roles.

3 Survey methods and response rate

Our survey was conducted using SurveyMonkey and included 48 questions. However, respondents received certain questions only based on previous responses. This means that the total of respondents for individual questions can differ from the number of respondents on the survey overall. Responses were collected in three rounds between October 2020 and January 2021. In the first round, a link to the survey was sent to every person assigned the role in Archie of IS or Assistant Information Specialist in a Cochrane entity. In the second round, the survey was sent to the contact person listed for any Cochrane Review Group (CRG), Field, Centre, Associate or Affiliate Centre that had not yet responded to the survey. Non-responders were followed up once again in the third round. Respondents were asked to complete the survey only once per Cochrane entity. The data was analysed using Excel.

In total, we contacted 113 Cochrane entities and received 84 responses (74% response rate). The response rate by entity types was 86% (43/50) of Cochrane Review Groups (CRGs), 64% (9/14) of Fields, and 65% (32/49) of Centres and Associate or Affiliate Centres (referred to as "Centres" in the subsequent text).

58% (49/84) of responders were Information Specialists, followed by 18% (15/84) Centre directors. 24% (20/84) held other roles, including Assistant Information Specialist, Managing Editor and Co-ordinating Editor.

A survey of Cochrane Information Specialists was previously undertaken in 2008 with the results reported in 2009 (Cochrane Trials Search Co-ordinators' Executive, 2009). We have been able to compare responses to questions that were asked in both surveys.

4 The Cochrane IS community

4.1 Which entities employ Cochrane ISs?

In this survey, we categorized the availability of Information Specialists (ISs) into three groups:

- 1) The Information Specialist is a member of a Cochrane entity,
- 2) the entity has access to IS services, but the Information Specialist is not a member of the entity,
- 3) the entity neither employs an Information Specialist nor has access to IS services.

Fig. 1 shows the distribution of IS availability by Cochrane entity.

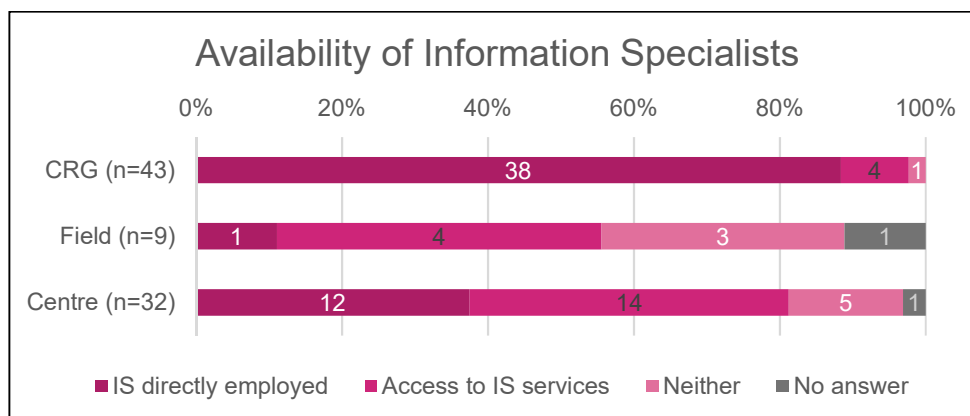


Fig. 1: Availability of ISs by Cochrane entity

61% (51/84) of entities reported directly employing an IS or Assistant IS, but the rate differs by entity type: 88% (38/43) of CRGs, 11% (1/9) of Fields, and 38% (12/32) of Centres have an IS.

The majority (76%, 39/51) of these entities reported having one IS or Assistant IS, 18% (9/51) have two.

4.2 What is the full time equivalent (FTE) of ISs?

Respondents whose entity directly employs an IS were asked about the full time equivalent (FTE) of the IS role. Figure 2 shows the breakdown per type of entity.

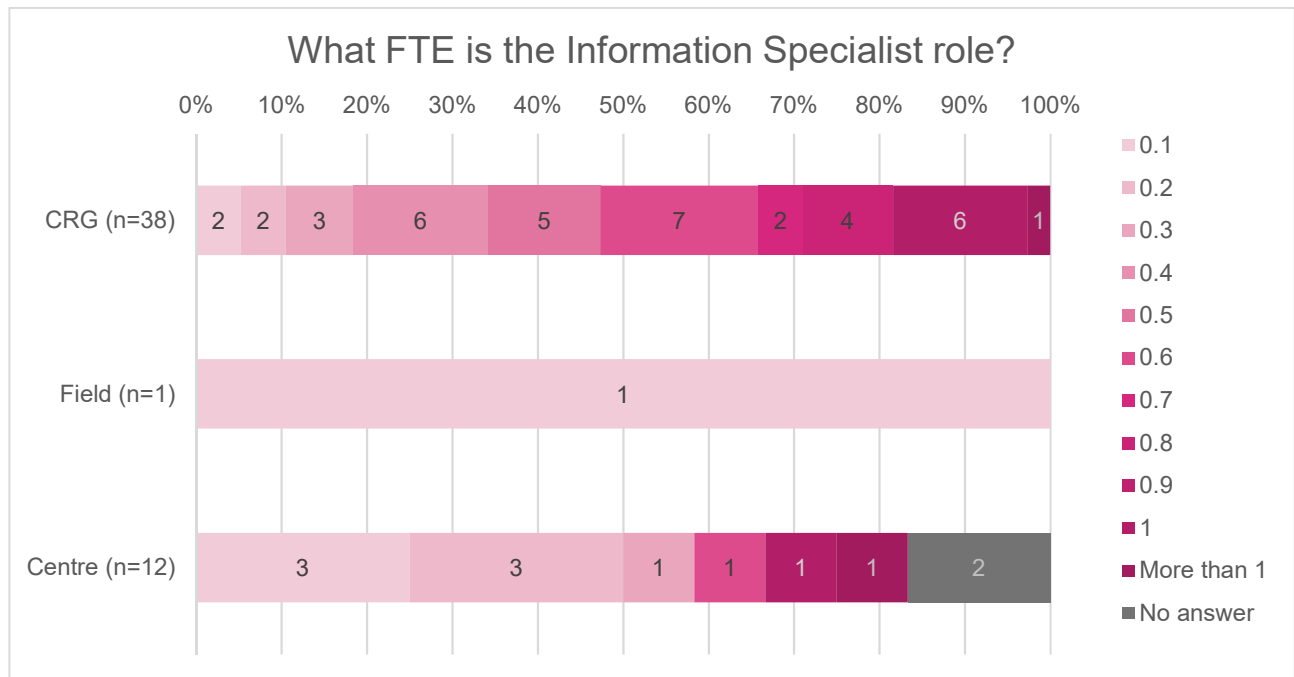


Fig. 2: Overview full time equivalent (FTE) of IS role

The FTE for all ISs and Assistant ISs of an entity was 1 or more in 18% (9/51) of the cases. 51% (26/51) of ISs roles have 0.5 FTE or less. ISs of CRGs were more likely to have a higher FTE, but 47% (18/38) were still at 0.5 or below.

4.3 How long have Cochrane ISs been in post?

69% (35/51) of ISs employed by Cochrane entities have been in this post for at least 6 years. Fig. 3 shows the breakdown by type of entity.

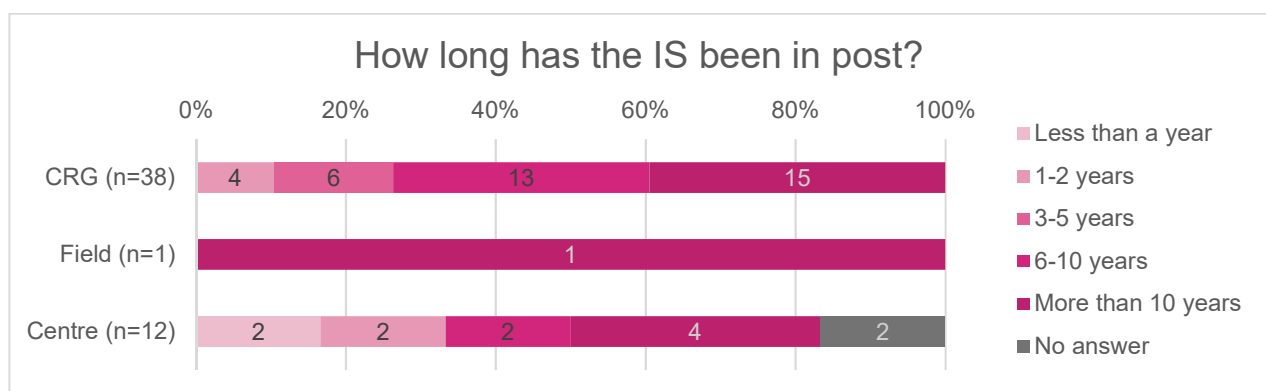


Fig. 3 Duration of employment of the IS

4.4 Access to IS services for entities not employing an IS directly

4.4.1 Alternative access to IS services

More than a third of responding entities (32/84) reported not directly employing an IS. However, 69% (22/32) reported having alternative access to the services of an IS. The rate differs between entity types: 80% (4/5) of CRGs, 50% (4/8) of Fields and 74% (14/19) of Centres report having alternative access to an IS.

4.4.2 No access to IS services

11% (9/84) of the entities who responded to the survey reported that they neither employed an IS and had no access to IS services (1 CRG, 3 Fields, 5 Centres). These respondents were asked whether they had support for specific tasks that are usually fulfilled by an IS:

- 44% (4/9) reported that they had support for "advising Cochrane review authors on appropriate resources to search"
- 33% (3/9) reported that they had support for "Designing the search strategies for Cochrane review authors", "Running the searches for Cochrane reviews and providing results to authors", and "Checking or editing the search methods sections of Cochrane reviews".
- In 6 of 9 cases, the above tasks are carried out by a non-IS member of the Cochrane entity.

None of the nine respondents reported having support for the following IS tasks:

- Checking and correcting reference lists in Cochrane reviews
- Maintaining a Cochrane specialised trials register
- Adding studies included in Cochrane reviews to CENTRAL
- PICO annotation

4.5 Summary points and commentary

- The access to ISs/IS services differs greatly between the types of Cochrane entities. CRGs are more likely to directly employ an IS than other Cochrane entities.
- The overwhelming majority of ISs who are directly employed by their entity, do not work full time. 51% (26/51) of ISs roles have 0.5 FTE or less. This may pose a problem when new tasks are centrally assigned to Cochrane ISs.
- 11% (9/84) of respondents to the survey reported that they did not employ an IS and have no access to IS services (1 CRG, 3 Fields, 5 Centres). However, we can hypothesize that the majority of the 29 entities who did not respond to our survey also do not directly employ an IS. They may also not have access to continual external IS services.
- The nine entities that do not have access to IS services still offer some sort of search support to review authors. This raises concerns about whether the tasks are being undertaken by someone with an appropriate skill set.

5 Cochrane IS tasks and roles

5.1 Tasks and roles carried out by ISs

73 respondents who reported that their entity either had an IS, or had access to IS services, were presented with questions regarding specific tasks of the IS: 42 CRGs, 5 Fields, and 26 Centres. The questions were

informed by the sample job description for the Cochrane Information Specialist role (Cochrane Information Specialist Support Team, 2016) which outlines the following responsibilities:

- Providing Cochrane review authors with comprehensive literature searching support,
- Maintaining and developing the Group's Specialised Register within the Cochrane Register of Studies (CRS),
- Contributing to the development of CENTRAL,
- Curating the meta data of the CRG's reviews using the PICO Annotation tool,
- Supporting the CRG's editorial and administrative processes.

Note that the job description is tailored towards ISs working for a CRG, and it is not mandatory to use it. There is no role description for ISs working for other Cochrane entities.

5.2 Tasks supporting review production

The first section of questions concerned tasks supporting the review process. As Fig. 4 shows, the tasks commonly performed differed between entity types.

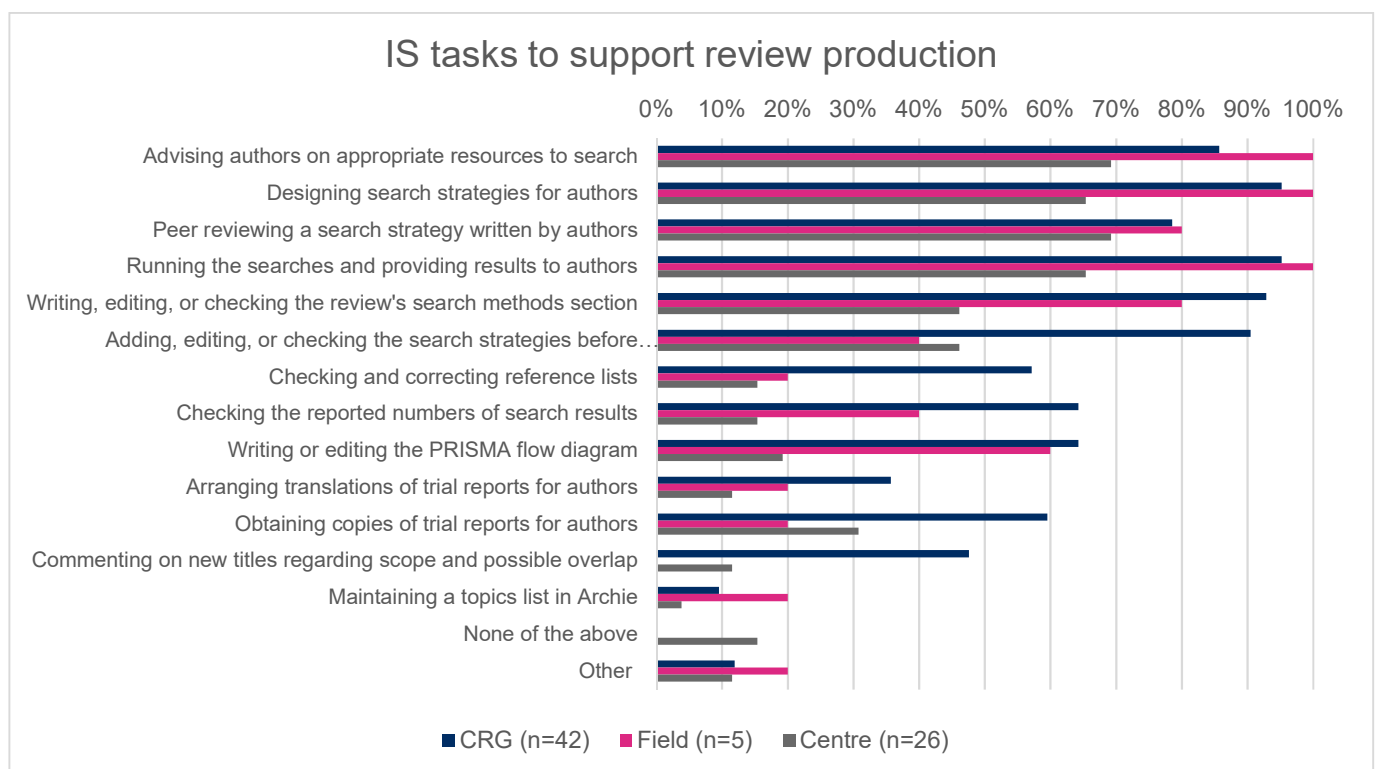


Fig. 4: Overview of IS tasks that support review production

For CRGs, the tasks most commonly performed by IS were:

- Running the searches and providing results to authors (95%, 40/42),
- Designing search strategies for authors (95%, 40/42),
- Writing or editing, or checking the search methods section of the review (93%, 39/42), and
- Adding, editing, or checking the search strategies in appendices before publication (90%, 38/42).

12% (5/42) reported being involved in other review support tasks, usually related to the editorial process.

The most common IS tasks for Fields were:

- Running the searches and providing results to authors (100%, 5/5)
- Designing search strategies for authors (80%, 4/5)
- Advising authors on appropriate resources to search (80%, 4/5)

All of the review support tasks were performed less often by Centre IS, with the most common tasks being:

- Advising authors on appropriate resources to search (69%, 18/26)
- Peer reviewing a search strategy written by authors (69%, 18/26)
- Designing search strategies for authors (65%, 17/26)
- Running the searches and providing results to authors (65%, 17/26)
- 12% (3/26) of respondents reported other tasks, these concerned a Cochrane-wide information service, collaboration across institutions, and teaching review authors.

5.2.1 Databases searched to support review production

Concerning the databases searched routinely (i.e., for the majority of reviews) for author teams, the databases specified by the *Methodological Expectations of Cochrane Intervention Reviews (MECIR)* (Higgins et al, 2021) were the most frequently used across all entities: MEDLINE (85%, 62/73), CENTRAL (79% 58/73), Embase (71%, 52/73), ClinicalTrials.gov (64%, 47/73), and WHO ICTRP (62%, 45/73).

However, these percentages were much higher in CRGs: MEDLINE (95%, 40/42), CENTRAL (90% 38/42), Embase (86% 36/42), ClinicalTrials.gov (74%, 31/42), and WHO ICTRP (74%, 31/42).

55% (23/42) of CRGs and 8% (2/26) of Centres regularly searched a specialized register.

The full table of databases searched is reported in Appendix B.

5.2.2 Tools and applications used to support review production

Various web tools and software applications are used to support Cochrane author teams. These tools are described in more detail in the *Cochrane Information Specialists' Handbook* (Cochrane Information Specialist Support Team, 2020). CRGs most commonly used Covidence (67%, 28/42), Cochrane Register of Studies (62%, 26/42), Screen4Me (40%, 17/42), and RCT Classifier (31%, 13/42). Use of any of these tools in Fields and Centres was much less common, the majority of respondents from these categories either skipped this question or stated that none were used (54%, 17/31).

Which of the following tools are used to support searching for author teams?	CRG (n=42)		Field (n=5)		Centre (n= 26)		Total (n=73)	
Cochrane Register of Studies	26	62%	0	0%	3	12%	29	40%
Screen4Me	17	40%	0	0%	0	0%	17	23%
RCT Classifier	13	31%	0	0%	1	4%	14	19%
Covidence	28	67%	1	20%	11	42%	40	55%

Rayyan	7	17%	1	20%	3	12%	11	15%
EPPI-Reviewer	0	0%	0	0%	2	8%	2	3%
None	3	7%	3	60%	7	27%	13	18%

Table 1: Web tools and software used to support author teams

5.3 Tasks supporting either a Cochrane entity or Cochrane generally

Whilst searching to identify reports of studies for inclusion in systematic reviews is the core of the role, ISs undertake many other tasks that do not directly support review production but remain key to supporting Cochrane activities. Fig. 5 shows an overview of these tasks by entity type.

Across all entities, between 37-48% (27-35/73) of respondents reported working in the following areas:

- Adding studies included in reviews to CENTRAL,
- Maintaining a specialised register,
- Teaching,
- PICO annotation,
- Peer review of search strategies for other Information Specialists. This task is part of the review process, but peer review is usually performed outside of the own Cochrane entity, so we consider it to benefit Cochrane in general.

Of these tasks, the most commonly performed and their frequency differed across entities.

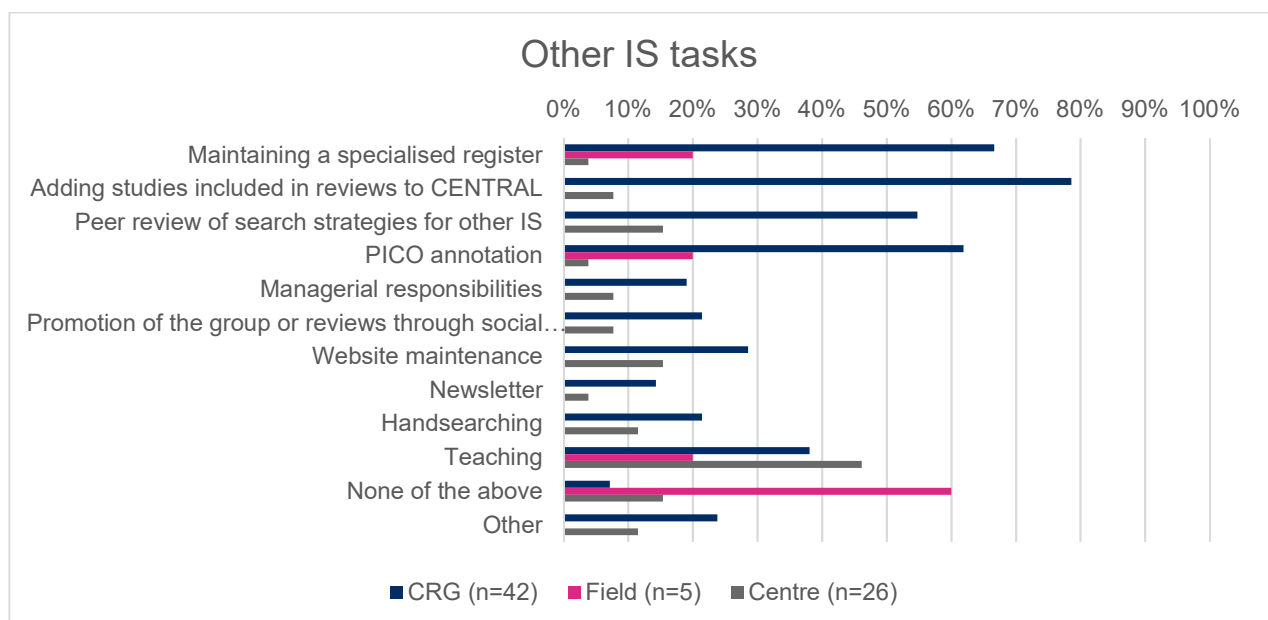


Fig. 5: Tasks undertaken by ISs that do not directly support review production

The most frequently performed non review related tasks in CRGs were:

- Adding studies included in reviews to CENTRAL (79%, 33/42),
- Maintaining a specialised register (67%, 28/42),

- PICO annotation (62%, 26/42), and
- Peer review of search strategies for other Information Specialists (55%, 23/42)

Teaching was by far the most common task for Centre respondents, reported by 46% (12/26). Between 12% and 15% (3-4/26) also reported participating in peer review of search strategies for other Information Specialists, website maintenance, and handsearching.

4 of 5 of Field respondents either did not fulfill any of the listed tasks or skipped the question. 1 respondent reported that they maintain a specialised register, perform PICO annotation, and teach.

5.3.1 Peer review of search strategies

There has been a call in recent years to encourage all ISs to routinely request peer review of their search methods and search strategies. Peer review is encouraged by the IS Executive and the *Cochrane Handbook of Systematic Reviews of Interventions* (Lefebvre et al, 2021) but has not been written into the MECIR standards (Higgins et al, 2021) or fully integrated into review production workflows.

Respondents were asked if their search strategies were routinely peer reviewed by an Information Specialist. The answers varied strongly across entity categories. (Fig. 6)

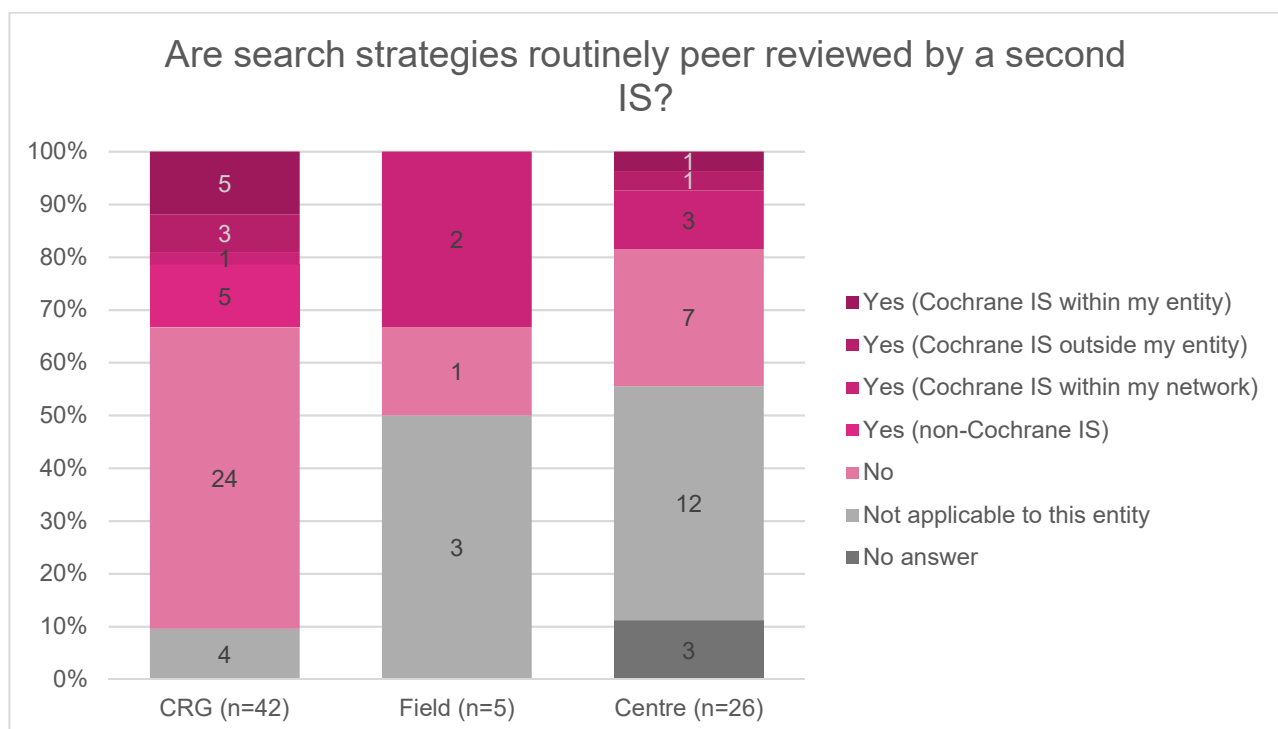


Fig 6: Frequency of peer review of search strategies by Cochrane entity

57% (24/42) of CRGs reported no peer reviewing, 33% (14/42) stated that the search strategies were peer reviewed, mainly by IS in their own group or Network. 10% (4/42) stated that the question was not applicable to their group.

60% of respondents from Fields (3/5) considered the task not applicable to their entity. 2 stated that search strategies were reviewed, and 1 reported no peer review.

The question was considered not applicable by 46% (12/26) of Centres, 19% (5/26) reported that peer review of search strategies is conducted, 20% (7/26) reported no peer review.

It should be noted that the number of respondents that considered peer review of search strategies not applicable to their entity (26%, 19/73) is higher than the number of respondents that reported that they did *not* design search strategies (15%, 11/73).

5.3.2 PICO annotation

PICO annotation of completed reviews is part of the current role description of Cochrane ISs. This task concerns the creation of metadata describing the review inclusion criteria to enable PICO views of Cochrane evidence in the Cochrane Library and elsewhere.

This task is mainly relevant to CRGs, and 84% (26/31) of Fields and Centres stated either that the task was not applicable to them or skipped the question. Responses for the remainder were divided equally across ISs, Central PICO team, and Managing Editor (each 6%, 2/31).

In CRGs, PICO annotation was most commonly performed by the IS (62%, 26/42), followed by the Central PICO team (33%, 14/42), Managing Editor (10%, 4/42), Editorial Assistant/Assistant ME (5%, 2/42). 2 participants stated that the task was not applicable to their group. (See Appendix B for a full breakdown of who undertakes PICO annotation.)

5.3.3 Teaching

The survey asked whether the ISs delivered teaching sessions on information retrieval to author teams, people within their institution, or others. 50% (21/42) of CRG ISs, 60% (3/5) of Field ISs, and 58% (15/26) of Centre ISs reported to be delivering information retrieval training.

Of the respondents involved in teaching, 69% (27/39) reported using their own training materials, and 54% (21/39) used materials provided by Cochrane Training.

5.3.4 Other roles within or outside of Cochrane

51 survey participants who reported that their entity directly employed an IS were asked about additional roles of the IS either within or outside of Cochrane. 33% (17/51) reported that the IS had another role in the entity. Based on open answers, these roles included Managing Editor (3) and Editor (3).

45% (23/51) of Cochrane ISs had other roles outside of the entity. In open answers, 12 reported additionally working as IS for someone else (university, trials unit, guideline developer, etc.), and 4 were freelance ISs.

45% (23/51) also reported performing tasks for Cochrane outside of their own entity. In open answers, they named in particular peer review of search strategies for other CRGs (8) and screening for Cochrane Crowd (5).

5.4 **Time spent on IS tasks**

Respondents were asked how much of their time they spent on their various tasks. 65% (20/31) of the respondents from Centres and Fields either skipped this question or provided unusable answers. For this reason, we have summarized only the CRG IS responses.

37 of 42 respondents from CRGs answered this question (Fig. 7). In general, they spent less than 10% of their time on the following tasks: PICO annotation, Specialised register maintenance, and other tasks. The majority spent 11-30% on Designing search strategies and Checking search methods/strategies before publication. Most time was spent on conducting searches for author teams, with the majority of ISs spending 21-50% of their work time on this task.

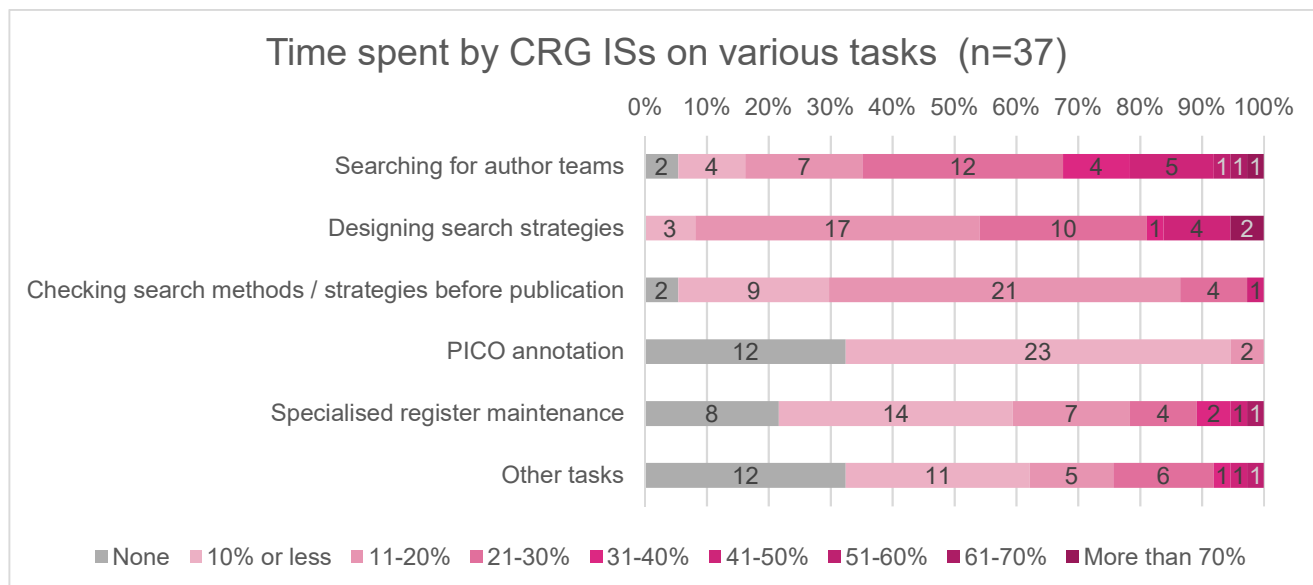


Fig. 7: Distribution of time spent by CRG ISs on various tasks

5.5 Summary points and commentary

- The tasks fulfilled by ISs can be divided in those that directly support review production and those that support either the Cochrane entity or Cochrane in general. Overall, ISs spend more time on tasks related to review production than on those supporting their entity or Cochrane more generally. A large part of ISs also fulfill other roles within Cochrane or provide non-Cochrane IS services.
- Some of the review support provided by ISs might fulfill the criteria of co-authorship for a review, in particular the combination designing and running search strategies, providing search results and describing search methods. However, other tasks such as peer review of searches are editorial in nature. On the one hand, ISs who provide substantial contributions should be recognized as co-authors. But on the other hand, care should be taken that authorial and editorial tasks are not assumed by the same person within a review.
- Peer review of search strategies is not undertaken consistently in all entities. 57% (24/42) of CRG ISs do not seek peer review of their search strategies, and 10% (4/42) stated that search peer review is not applicable to their CRG. On the other hand, 95% (40/42) of CRG respondents reported that the IS designs and runs searches. This might indicate that the lack in uptake is not only due to time or workflow constraints, but also stems from doubt about the usefulness of peer review. In this case, more research on the benefits and possible harms of search peer review could be useful to improve uptake.
- While the IS role description available represents the tasks commonly undertaken by CRGs, it does not seem to capture the work of other Cochrane ISs as accurately. Centre ISs in particular are less likely to conduct tasks traditionally associated with Cochrane Information Specialists. 69% (18/26) advise review authors on searching and peer review search strategies authors. Their most common non-review related task is teaching (46%, 12/26).
- 95% (40/42) of CRG Information Specialists design and run searches for review authors. These are also the tasks that ISs spend most of their work time on. The most common CRG IS task not directly related to review production is adding studies to CENTRAL (79%, 33/42), while PICO Annotation is undertaken by 62% (26/42).

- ISs often do not work solely for the Cochrane entity. Almost half of them either have jobs outside of Cochrane or do additional work for Cochrane outside of their own entity. Additionally, around a third of ISs also fulfill another role within their entity (e.g., managing editor).

6 Specialised registers

6.1 Specialised Registers

It is mandatory that all CRGs develop and maintain a specialised register, unless specific permission not to do so has been granted. Registers serve two main purposes: to provide a curated set of reports of studies in a particular scope (healthcare area) that can be used for searching for a systematic review, and to help to build and develop the CENTRAL database. Entities may use their registers for other purposes, for example, scoping out topics for reviews, or to aid in priority setting. One section of our survey was devoted to the current status of an entity's specialised register and the processes undertaken by ISs to maintain them.

30 of 84 (36%) of survey respondents indicated that their entity maintains a specialised register: 65% (28/43) of CRG respondents and 22% (2/9) of Fields. No Centres reported maintaining a specialised register.

The 30 survey respondents who had a register then received some follow-up questions.

6.2 Register characteristics and maintenance

For those entities who maintain a register, it is still a key IS task, 29 out of the 30 entities had an Information Specialist working on the register. The exception was one Field, where the register was the responsibility of the Field Co-ordinator, with the help of an assistant. In three CRGs, the IS had help from either an assistant IS or an editorial assistant. One CRG reported having two registers (one for RCTs and the other for economic evaluations). One CRG maintained their register with the help of a software developer.

If the group or entity maintains a specialised register, what kind of register is it?	CRG (n= 28)		Field (n=2)		Total (n=30)	
Study based	3	11%	0	0%	3	10%
Reference or report based	18	64%	1	50%	19	63%
Mix of the two	7	25%	1	50%	8	27%

Table 2: Types of specialised register

Registers can be study-based or reference/report-based. Study-based registers link reports of trials together under one study record, whereas reference or report-based registers have each report as a stand-alone record. The majority of registers were reference or report-based, with some entities having a mix of the two. Only 11% of CRGs reported maintaining a purely study-based register.

Have you published information about the register on the group or entity website?	CRG (n= 28)		Field (n=2)		Total (n=30)	
Yes	17	61%	1	50%	18	60%
No	11	39%	1	50%	12	40%

Table 3: Public availability of register information

To improve the transparency of Cochrane review search methodology, it has been recommended that groups publish information about how their register is compiled and maintained on their group or entity website (Cochrane Information Specialist Support Team, 2019), so that it can be referenced in the Cochrane reviews which utilise register searching. Despite this, 40% (12/40) of respondents had not published this information.

Does the group/entity submit records from the specialised register to CENTRAL?	CRG (n= 28)		Field (n=2)		Total (n=30)	
Yes	25	89%	1	50%	26	87%
No	3	11%	1	50%	4	15%

Table 4: Availability of specialised register entries via CENTRAL

A key purpose of specialised registers is to feed high quality eligible records to the CENTRAL database (i.e., RCTs, quasi-RCTs, controlled before-and-after studies and interrupted time series). However, the survey found that 15% (4/30) of respondents who maintained a specialised register were not doing this.

What type of studies does the specialised register contain?	CRG (n= 28)		Field (n=2)		Total (n=30)	
RCTs	28	100%	1	50%	29	97%
CCTs	23	82%	1	50%	24	80%
Diagnostic test accuracy reports	2	7%	0	0%	2	7%
Controlled before and after	2	7%	0	0%	2	7%
Interrupted time series	1	4%	0	0%	1	3%
Systematic reviews	5	18%	1	50%	6	20%
Guidelines	1	4%	0	0%	1	3%
Other	4	14%	1	50%	5	17%

Table 5: Types of study designs included on Cochrane specialised registers

Specialised registers can theoretically contain any type of study. While the majority of entities used their registers to collect the reports of studies that are eligible for CENTRAL, many were maintaining registers which contain other types of study design. 20% (6/30) of registers incorporated systematic reviews, and 7% (2/30) include diagnostic test accuracy reports. Controlled-before-and-after studies and interrupted time series were much less often included than RCTs and quasi-RCTs. Other study types collected included observational and qualitative studies, economic evaluations and studies on methodologies and instruments.

How frequently are searches conducted to populate the register?	CRG (n= 28)		Field (n=2)		Total (n=30)	
Daily	0	0%	0	0%	0	0%
Weekly	5	18%	0	0%	5	17%
Monthly	8	29%	0	0%	8	27%
Quarterly	6	21%	2	100%	8	27%
Annually	0	0%	0	0%	0	0%
Other	9	32%	1	50%	10	33%

Table 6: Frequency of updates to registers

There was a lot of variation in how Cochrane entities with registers maintain them, with just over a quarter reporting monthly searching, and the same again for quarterly searching. Five of the 30 entities searched for records on a weekly basis. For other entities, the amount and timing of searching depended on the

volume of research, the amount of time available, or the references coming through from review publications. It is still clearly a significant task for many of the groups.

Which software is used to maintain the specialised registers?	CRG (n= 28)		Field (n=2)		Total (n=30)	
Cochrane Register of Studies	21	75%	1	50%	22	73%
Meerkat	1	4%	0	0%	1	3%
EndNote	3	11%	1	50%	4	13%
ProCite	1	4%	0	0%	1	3%
Other	2	7%	0	0%	2	7%

Table 7: Overview of software used to maintain the register

Almost three-quarters of entities with a register used the Cochrane Register of Studies (CRS) to maintain them. EndNote was the next most common software (13%, 4/30). Meerkat, ProCite, and Reference Manager were used by one CRG each, and another used a mix of the CRS and EndNote.

Which of the following tools have been used to support maintaining the specialised register?	CRG (n= 28)		Field (n=2)		Total (n=30)	
Cochrane Register of Studies	24	86%	1	50%	25	83%
Screen4Me	6	21%	0	0%	6	20%
RCT Classifier	14	50%	1	50%	15	50%
Don't know	2	7%	0	0%	2	7%

Table 8: Overview of tools used to support register maintenance

83% (25/30) of thirty respondents used the Cochrane Register of Studies as a tool to maintain their register, and half had used the RCT Classifier. The Screen4Me service was less commonly used for register maintenance, with only one fifth having used it.

6.3 Information sources used to populate the specialised register

The source most frequently searched for register maintenance was MEDLINE, with almost three quarters of entities with a register using this as a source. This is despite the fact that MEDLINE records are available via a direct feed to CENTRAL. CENTRAL was the next most common, with almost two-thirds searching it for records, followed by Embase, and CINAHL and PsycINFO. Embase and CINAHL are also databases covered by CENTRAL.

In addition to bibliographic databases, other information sources and search methods were also used to populate the registers. 30% (9/30) of respondents reported handsearching of some kind (usually searching electronic journals). The same number reported searching conference proceedings, and almost a quarter were searching trials registers. But 37% (11/30) were not undertaking any additional searching outside database searches. Other methods to populate registers included screening the results of review searches and adding eligible references, journal alerts and adding reports of studies encountered by chance. (See Appendix B for a full breakdown of information sources.)

6.4 Summary points and commentary

- Despite it being a task included in the Memorandum of Understanding signed by CRGs and Cochrane central, only 65% (28/42) review groups reported maintaining a specialised register. Some of the remaining 14 CRGs have applied for an exemption to maintaining a register. However, the reasons for not having a specialised register as well as the benefits of maintaining one should be investigated more systematically.

- Despite encouragement to do so, 40% (12/30) of respondents maintaining a register had no information on their website about how the register was populated and updated.
- While 65% (28/42) of CRGs maintain a register, only 55% (23/42) reported regularly searching their registers for author teams. This could indicate that in the other cases the register is maintained only to supply CENTRAL with eligible records. Considering that the main sources searched for registers (MEDLINE, Embase, CINAHL and trials registries) are also fed directly into CENTRAL by the Centralised Search Service, this might be an unnecessary duplication of effort.
- On the other hand, 15% (4/30) of respondents were not contributing records to CENTRAL. This means their records are most likely only accessible to the entity itself.

7 Networks

Cochrane has recently created eight Networks of CRGs responsible for the efficient and timely production of high-quality systematic reviews that address the research questions that are most important to decision makers.

Some of the survey questions around Cochrane Networks invited free text responses. Throughout this section we have included a sample of free text responses reflecting common themes. The complete responses are given in Appendix A.

7.1 Reflections on Cochrane Networks

42 survey respondents based in CRGs who had reported that their entity had an IS or had access to IS services, were asked about IS participation in Cochrane Networks.

There were 39 respondents to the question: 'In your opinion, what impact have the Networks had on the IS role?'

- 46% (18/39) felt that Networks had little or no impact on ISs.
- 26% (10/39) mentioned the opportunity for peer-review of search strategies.
- 21% (8/39) felt that Networks were an opportunity to communicate with other ISs.

45% (10/22) of respondents answered "no" to the follow-up question 'Do you have any suggestions for how the Senior Editor, Associate Editor and Network Support Fellow could better support the Information Specialist role?'

It was difficult to identify themes from the remaining responses: Some (14%, 3/22) suggested prompting awareness of the IS role and tasks in some way, 2 suggested greater centralization of IS tasks, and 2 stated that no Network support was needed.

CRG respondents were asked about collaborations between their Network and Centres or Fields. Most respondents (67%, (29/42) were unsure whether cooperation was happening between these Cochrane entities.

7.2 Summary points and commentary

- Overall, the introduction of Networks seems to have had little impact on Information Specialist roles and tasks.
- About a quarter of respondents perceived increased opportunities for peer review of search strategies and, a slightly lower proportion saw opportunities to communicate with other ISs.
- The majority of ISs are unsure whether their networks collaborate with other Cochrane entities.

8 Training and support

73 respondents who reported that their entity either had an IS, or had access to IS services, were asked about training and support opportunities for Cochrane ISs. We categorised these answers by the reported role of person filling out the survey: 49 Information Specialists (including one Assistant IS), and 24 other roles (e.g., managing editors, Centre directors).

It should be noted that the balance of entities directly employing ISs and entities having access to IS services differed greatly between these two groups of respondents. While the majority of IS respondents belonged to entities where the Information Specialist is part of the team, most other respondents belonged to entities that use external IS services. This difference could impact their views on training and support.

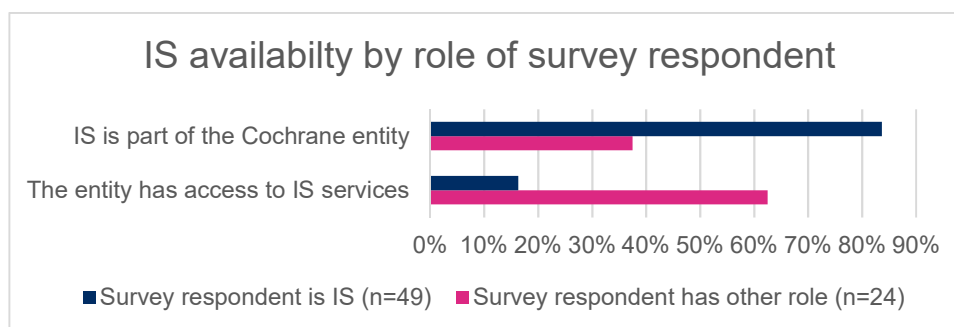


Fig. 8: IS availability categorised by the role of the person filling out the survey.

Some of the survey questions around training and support for ISs invited free text responses. Throughout this section we have included a sample of free text responses reflecting common themes. The complete responses are given in Appendix A.

8.1 Career development opportunities for Cochrane ISs

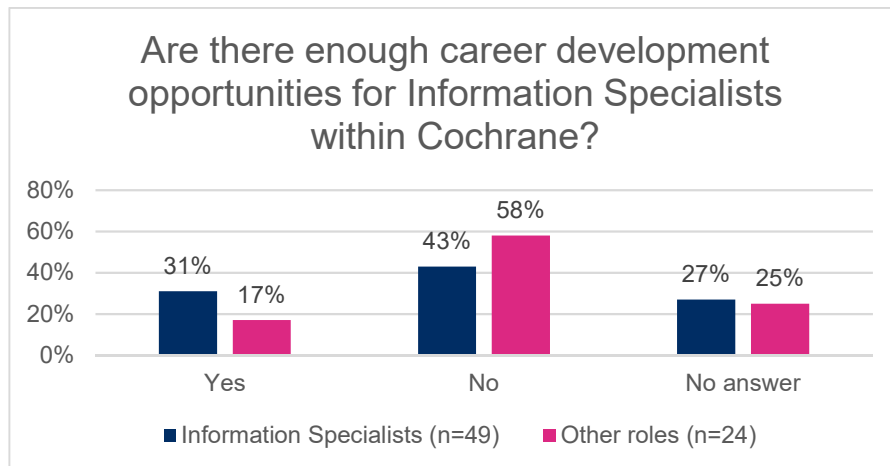


Fig. 9: Career development opportunities for ISs

Overall, almost half of the respondents (35/73) felt that there were not enough career development opportunities within Cochrane. A quarter of respondents chose not to answer this question. However, the ISs responding were somewhat more likely to find career development opportunities for Information Specialists sufficient, compared to other respondents.

We asked respondents to comment further on their responses. There was some variation in the responses, and a lack of agreement over what constitutes career development, with some interpreting this as training events, and some as a career pathway. Comments included:

- 'The best opportunities are provided via the Exec, and secondment opportunities to Cochrane centrally, e.g., IS Support. It has often seemed that the only way to progress is to become a systematic reviewer or ME (as this is considered by some a more senior role which it shouldn't be). This is a real shame.'
- 'I wish the role was centrally funded and organised, so that very experienced people are retained in the long-term even as Groups change and/or move host institution.'
- 'There is not a formal path for promotion within Cochrane.'
- 'There are useful training opportunities. It is difficult to provide genuine career development within a defined role in Cochrane. There could be more opportunities for learning about new methods and conducting research/research skills however this would need protected time away from core IS tasks.'
- 'No prospect of promotion unless you leave.'
- 'There is plenty of scope to take on new tasks and learn new skills, but not many to increase your level/salary.'

8.2 Advanced search skills of Cochrane ISs

The IS community has repeatedly identified the need for training and development for complex searching/review methods. Cochrane reviews now include many different study designs and new methods e.g., living reviews. ISs wish to upskill to support this.

Table 9 shows that 59% (29/49) of ISs surveyed had some experience in searching for non-randomised studies, while 41% (20/49) had some experience in searching for diagnostic test accuracy studies. There was less experience in searching for other study types and clinical study reports. A third of the non-ISs responding was unsure what advanced search skills their IS/IS service had.

Does the entity's Information Specialist have skills in any of the following areas:	Information Specialists (n=49)		Other roles (n=24)		Total (n=73)	
	Count	Percentage	Count	Percentage	Count	Percentage
Searching for diagnostic test accuracy studies	20	41%	7	29%	27	37%
Searching for non-randomised studies	29	59%	10	42%	39	53%
Searching for economic studies	17	35%	1	4%	18	25%
Searching for prognostic studies	16	33%	8	33%	24	33%
Searching for clinical study reports	9	18%	7	29%	16	22%
Don't know	4	8%	8	33%	12	16%

Table 9: Advanced searching skills

8.3 Cochrane IS attendance at colloquia

Does the Information Specialist in the group or entity usually attend the colloquium?	Information Specialists (n=49)		Other roles (n=24)		Total (n=73)	
	Count	Percentage	Count	Percentage	Count	Percentage
Yes	20	41%	3	13%	23	32%
No	2	4%	8	33%	10	14%
Sometimes, if there is funding	16	33%	9	38%	25	34%
Sometimes, if the colloquium is local	6	12%	2	8%	8	11%
Skipped	5	10%	2	8%	7	10%

Table 10: IS attendance at colloquia

Table 10 shows that 41% (20/49) of IS respondents attended the Cochrane Colloquium regularly. For 45% (22/49) of Information Specialists attendance was dependent on funding or geographical location.

8.4 Cochrane IS attendance at regional meetings

Does the Information Specialist in the group or entity usually attend regional meetings?	Information Specialists (n=49)		Other roles (n=24)		Total (n=73)	
	Count	Percentage	Count	Percentage	Count	Percentage
Yes	21	43%	5	21%	26	36%
No	7	14%	9	38%	16	22%
Sometimes, if there is funding	11	22%	7	29%	18	25%
Sometimes, if the meeting is local	6	12%	1	4%	7	10%
Skipped	4	8%	2	8%	6	8%

Table 11: IS attendance at regional meetings

The number of Cochrane Information Specialists able to attend regional meetings (such as the Cochrane UK and Ireland Symposium or the Australasian Symposium) was similar to the numbers who are able to attend the Colloquium.

8.5 Support for Cochrane ISs within Cochrane

Does the Information Specialist role get enough support within Cochrane?	Information Specialists (n=49)		Other roles (n=24)		Total (n=73)	
	Count	Percentage	Count	Percentage	Count	Percentage
Yes	28	57%	11	46%	39	53%
No	12	24%	6	25%	18	25%
Skipped	9	18%	7	29%	16	22%

Table 12: Support for ISs within Cochrane

Table 12 shows how ISs report feeling with regard to support for their roles within Cochrane. 57% (28/49) felt that the Information Specialist role receives enough support within Cochrane, while approximately a quarter (24%, 12/49), said 'no'. A number of respondents skipped this question. Respondents were asked to make further comment if they wished.

There was praise for the IS Support Team and the peer support within Cochrane:

- 'I think having a dedicated Support Team is brilliant.'
- 'The support team are great if you have any issues, but the role does sometimes feel quite isolated, I'd really like more training e.g. the recent IRMG day was really useful.'
- 'Good peer to peer support.'
- 'I've never felt like I could not approach a colleague, fellow IS or any other colleague within Cochrane, whatever their seniority, for help or if I have a question.'

There were a number of comments around workload, and the perceived expectation that Information Specialists have infinite capacity to take on new tasks, for example:

- 'Support is provided for anything new that Cochrane wants us to take on, but it is assumed we can be required to take on anything, and there is no interest in supporting our primary searching role.'
- 'I am still relatively new to Cochrane, so I do not have much in the way of institutional knowledge...but the PICO annotation project seemed to come as a directive from Cochrane Central with little consideration of IS's existing roles and duties. I have found it to be fairly impossible to fit in with my other duties.'

There was also seen to be a disconnect between tasks imposed centrally by the Cochrane Executive Team and awareness of these tasks by direct line managers and co-ordinating editors of individual review groups:

- 'Although I was aware when the CRS was in development our IS had lots of issues that were seen as her making difficulties, but which turned out to be system bugs. The IS have been given tasks centrally e.g., PICO annotation, without discussion with their manager, so managers can't support them and are not informed about the project or its demands for work planning.'

There were concerns expressed about Information Specialists being left behind in terms of training and support, especially for those based outside Cochrane review groups, and those who are based outside European time zones:

- 'Mainly due to the cancellation of national and international meetings over the past 12 months there has been a real lack of Cochrane training for IS available. Info science is moving rapidly - really important to keep everyone up to speed - with the increase in online meetings at present

Cochrane are missing a great opportunity to update IS on RevMan Web, CRS Developments, trials reg searching, clinical study report searching, citation searching, etc. A lot of universities are scared to release funds for training purposes at present - shouldn't have to pay for this ourselves outside of Cochrane. It could be another 12 months before any in-person training is available.'

- 'Support and informational material are generally geared towards IS working for Review Groups. There seems to be no clear guidance on the role of other IS. That can be a good thing (more freedom), but it can also be isolating, because there is no sense of shared tasks or issues for non-Review Group IS.'
- 'Due to geographic location] I get little support. The IS team are supportive, but it is difficult with different time zones and lack of face-to-face meetings. I really need help with CRS when I was first importing the register as there are problems with it now that could have been avoided.'
- 'Time zone difference makes it very difficult to get real time support.'

8.6 Training needs for specialist searching

Does the Information Specialist need training to support searching for:	Information Specialists (n=49)		Other roles (n=24)		Total (n=73)	
Searching for diagnostic test accuracy studies	14	29%	9	38%	23	32%
Searching for non-randomised studies	15	31%	9	38%	24	33%
Searching for prognostic studies	15	31%	7	29%	22	30%
Searching for clinical study reports	14	29%	11	46%	25	34%
Searching for another study type	6	12%	3	13%	9	12%

Table 13: Support for specialist searching

Around one third of respondents said they needed some support in searching for non-RCT study designs, the numbers were roughly similar across diagnostic test accuracy reviews, non-randomised studies, prognostic studies and clinical study reports.

Respondents also requested support in searching for qualitative studies and observational studies. One respondent was also interested in further training in the tools to help to build a specialised register.

8.7 What training and support is needed by Cochrane ISs in the next twelve months?

In response to this question, the most commonly mentioned area for training was advanced searching methods such as automation tools or text analysis for building search strategies, and the creation of methodological filters. Comments included:

- 'Advanced searching workshops in finding different study types would be useful. The webinars arranged by Cochrane are great, together with the newsletter and email list.'
- 'I would be interested in training for objective search strategy design, i.e., not just using text analysis tools, but applying statistical measures to decide which search terms to include.'
- 'Search strategies for complex topics when you cannot easily define search concepts or apply PICO. Search strategies for broad and vague topics when you have to use more broad and more general search terms which result in retrieving too many records.'

Cochrane editorial tools were another area where training would be beneficial, not only in terms of how to use these tools, but also how they might be improved to suit Cochrane Information Specialists' work:

- 'Training on the new EMS and any changes to Archie and RevMan'
- 'We personally need training and support in CRS, Covidence, RevMan Web, the new EMS to be able to support authors. Preferably during work hours.'
- 'I would like a review of the tools we are required to use daily (CRS, Covidence, PICO annotator etc.) that focused on identifying deficiencies and prioritised resolving them to make our work easier. I'm always happy if people share best practice in using them so I can learn from others' experience. I would also like to see strong support for IS's as a group as we move to the new EMS and RMW. It would be good if someone could lobby for those tools to be as user-friendly as possible for IS's. Crucially ensuring that they don't have less functionality than current tools.'

There is still a demand for training on the CRS:

- 'hands on, face to face (if possible :) training of CRS web it has good functionality but I don't have to confidence in it to maintain my specialised register in it and I would like to as Procite is a dying software '

There was a need for networking opportunities, as the role can feel isolated:

- 'I think it would be useful to have regular IS Zoom meetings to discuss relevant issues and provide training. The workshops at the Oxford symposium (the only one I've attended has been in post 2 years) were really useful so it would be great to have more of that online throughout the year especially for new Information Specialists.'
- 'Shared practices on how to facilitate searches with new search methods'
- 'Keeping abreast of Cochrane Strategic direction. Feels quite isolated in lockdown, but I expect this is the same for all roles'

8.8 Further suggestions on ways in which Cochrane could better support ISs

Respondents were asked what Cochrane might do to improve support to Information Specialists. Responses were varied. Some centred around the visibility of and support for the Information Specialist role within Cochrane:

- 'A recognition that it is an important, professional role and not a junior/unskilled admin role.'
- 'I feel that Managing and Co-ordinating editors do not always fully understand the skills and expertise of Information Specialists, and perhaps Cochrane as an organisation might promote this understanding. Cochrane could also acknowledge the expertise and intellectual contribution made to reviews by awarding Information Specialists authorship.'

There was some feeling that coordinated methods support and research was needed:

- 'The formation of some sort of IS research committee to help with designing and conducting research in searching'
- 'Search methods research is scattered across various methods groups - qualitative group, prognosis group etc. The IRMG only covers search methods for standard intervention reviews. We

would benefit from some co-ordination that pulls together the research & guidance from multiple methods groups in one place.'

- 'The IRMG doesn't support Cochrane ISs and it should. It would be good to be supported in informational research'
- 'A more higher-level/centralised support for evaluating search methods across Cochrane might be useful. E.g., Centralised collecting of data concerning the database coverage or sensitivity of database searches would create a more complete and Cochrane-specific picture of relevant information sources. This information would in turn would be useful to improve search efficiency in the long run.'

There was a sense that Cochrane is too UK-centric:

- 'Support for other time zones as recordings of webinars aren't always ideal. A dedicated support person in our time zone to assist those in the southern hemisphere.'
- 'Move focus to a generally global view rather than UK centric by asking and listening to all IS '
- 'Open the possibility of online training workshops in other languages.'

More opportunities for networking were requested:

- 'I think ISs have a high profile in Cochrane and the work is rewarding and interesting. It's been a shame we have missed our face to face meetings as those are great for building a sense of community. Maybe the Networks could host some online meetings specifically for their ISs? Or just a coffee morning like the MEs have had?'
- 'It would be good to meet and exchange more often - to receive invitations for internal trainings and workshops.'

The need for more funding for the IS role was expressed:

- 'I personally feel that my role needs more hours in order to complete tasks e.g., PICO annotation. I don't know how many other IS are in the same position but this seems to be a funding issue.'
- 'Peer review of search strategies is incredibly important to improve a review's methodological rigor - but it is quite difficult to get one within my network (I have since made other arrangements). I think Cochrane should require it for reviews but will have to make some formal commitment to hiring additional Information Specialists at Cochrane Central to bring it to fruition. In my experience, there is not enough FTE at the review group or centre level to address the need.'

Funding for attending the Colloquium and other training was also an issue:

- 'Often as entity support is limited, the availability of funds to support an Information Specialist to attend a conference or PD day is often absent. Perhaps a general fund to support Information Specialists to attend the colloquium or other relevant seminars could be helpful when their entity does not have the resources?'
- 'Is there any possibility to financially support Information Specialists from less developed countries to attend colloquiums?'

One respondent mentioned the need for mentoring and one-to-one training:

- 'Workshops can only take training to a certain theoretical level, training needs to be one on one mentoring and coaching with real search strategies. It will require investment in time '

8.9 Summary points and commentary

- Cochrane's Information Specialists need more recognition in terms of their professionalism and expertise; and they need to be made to feel valued within the organization.
- Around half of Cochrane Information Specialists believe that there are no career development opportunities within Cochrane; although some training is available, there is no career pathway or ability to build a career.
- There is a well-voiced need for training and support for complex searching among Cochrane ISs, both in terms of advanced searching methods and searching for study types outside the standard RCTs for intervention reviews.
- Cochrane Information Specialists are limited in their attendance at colloquia and regional meetings by lack of funding. Training opportunities should be provided outside these and with different time zones in mind. A central fund to enable more Information Specialists to attend colloquia/regional meetings would be welcomed.
- There is a need for more networking opportunities for Cochrane Information Specialists.
- Training needs include training on Cochrane's editorial tools and CRS.

9 Comparison between 2008 and 2020 CIS surveys

It is useful to compare the results of this survey with the 2008 survey. As the number of Information Specialists based at Centres and Fields who responded to the survey was low in the 2008 dataset, we have only compared the data on ISs working with CRGs.

9.1 CIS availability and employment

Is an Information Specialist employed directly by the group / do you have access to the services of an Information Specialist?	CRGs in 2008 (n=47)		CRGs in 2020 (n=43)	
	Yes	46	98%	42
No	1	2%	1	2%

Table 14: Comparison of IS availability in CRGs in 2008 and 2020

In both surveys, respondents were asked about the time they work for Cochrane as IS. We translated the 2008 responses from days/hours per week to FTE to make them comparable to the 2020 data. Note that in the 2020 survey, only respondents of CRGs directly employing an IS received this question. They were asked for the cumulative FTEs of all ISs working for the entity.

What FTE is the Information Specialist role?	CRGs in 2008 (n=47)		CRGs in 2020 (n=38)	
0.1	1	2%	2	4%
0.2	0	0%	2	4%
0.3	0	0%	3	6%
0.4	4	9%	6	13%
0.5	10	21%	5	11%
0.6	9	19%	7	15%
0.7	1	2%	2	4%
0.8	3	6%	4	9%
0.9	1	2%	0	0%
1	17	36%	6	13%
More than 1	0	0%	1	2%
Skipped	1	2%	0	0%

Table 15: FTE of the IS role

There has been a very significant change in the number of hours worked by Cochrane Information Specialists between 2008 and 2020: In 2008, 17 respondents reported working full time as Cochrane IS, while there were only 7 CRGs in 2020 that reported a FTE of 1 or more for the IS role.

How long has the group Information Specialist been in post (if there is more than one, please state the longest)?	CRGs in 2008 (n=47)		CRGs in 2020 (n=38)	
Less than a year	2	4%	0	0%
1-2 years	11	23%	4	11%
3-5 years	8	17%	6	16%
6-10 years	18	38%	13	34%
More than 10 years	8	17%	15	39%

Table 16: Length of time IS has been in post

Table 16 shows that there has been a significant change to the length of time ISs were in their posts as Cochrane Information Specialists. In 2020, 39% had been in post for more than ten years, compared to 17% in 2008.

9.2 CIS tasks

Another important point of comparison is the tasks carried out by IS. We selected tasks presented in both surveys and compared how frequently they were carried out by respondents. Note that in the 2020 survey, all respondents whose CRG had access to any IS services received these questions.

Which of the following tasks are done by the Information Specialist to support reviews?	CRGs in 2008 (n=47)		CRGs in 2020 (n=42)	
Designing search strategies for authors	43	91%	40	95%
Running the searches and providing results to authors	43	91%	40	95%

Writing or editing, or checking the search methods section of the review	32	68%	39	93%
Adding, editing, or checking the search strategies in appendices before publication	39	83%	38	90%
Advising authors on appropriate resources to search	40	85%	36	86%
Checking the results of the search section to see that numbers match the rest of the review	14	30%	27	64%
Obtaining copies of trial reports for authors	28	60%	25	60%
Checking and correcting reference lists	20	43%	24	57%
Commenting on new titles regarding scope and possible overlap	17	36%	20	48%
Arranging translations of trial reports for authors	22	47%	15	36%

Table 17: Tasks undertaken by CRG ISs to support the production of Cochrane reviews

The table shows that in 2020, 95% of CRG ISs reported that they design and run searches for review authors. This has increased slightly since 2008, but the big increase is the number involved in 'Writing or editing, or checking the search methods section of the review', which increased from 68% in 2009 to 93% in 2020. The number of ISs who now reported 'Checking the results of the search section to see that numbers match the rest of the review' more than doubled from 30% to 64%. The only area where activity declined was in the number of ISs who reported arranging translations of trial reports, down from 47% to 36% in 2020.

Which other tasks are undertaken by the Information Specialist?	CRGs in 2008 (n=47)		CRGs in 2020 (n=42)	
Website maintenance	12	26%	12	29%
Newsletter	15	32%	6	14%
Handsearching	34	72%	9	21%
Teaching	16	34%	16	38%

Table 18: Tasks undertaken by ISs that do not directly support review production

In addition to review production support, ISs have always carried out other tasks in their CRGs. The major change amongst these tasks undertaken was the amount of handsearching. Almost three quarters of groups were undertaking some form of handsearching activity in 2008. By 2020, this had fallen to one fifth. On the other hand, the 2020 data shows that ISs also carried out new tasks that were not mentioned in last survey. In particular PICO annotation, social media activities, and peer review of search strategies.

Which databases are searched routinely (i.e., in the majority of reviews) for author teams?	CRGs in 2008 (n=47)		CRGs in 2020 (n=42)	
Total asked	47		42	
Specialised register	43	91%	23	55%
CENTRAL	39	83%	38	90%
MEDLINE	40	85%	40	95%
Embase	37	79%	36	86%
Others	30	64%	31	74%

Table 19: Databases regularly used to support author teams

There has been a considerable drop in the number of Cochrane Information Specialists undertaking searches of a specialised register for Cochrane reviews. However, for other databases the numbers are roughly equivalent between 2008 and 2020.

9.3 Specialised registers

Does the group or entity maintain a specialised register?	CRGs in 2008 (n=47)		CRGs in 2020 (n=42)	
	Yes	45	96%	28
No	2	4%	14	33%

Table 20: Specialised registers across CRGs

The number of CRGs maintaining a specialised register has fallen. Almost all respondents in 2008 reported running a specialised register, but only two-thirds were doing so in 2020.

How frequently are searches conducted to populate the register?	CRGs in 2008 (n=45)		CRGs in 2020 (n=28)	
	Total asked	45		28
Daily	3	7%	0	0%
Weekly	9	20%	5	18%
Monthly	10	22%	8	29%
Quarterly	10	22%	6	21%
Annually	6	13%	0	0%
Other	5	11%	9	32%
Skipped	2	4%	0	0%

Table 21: Update frequency of specialised registers

There seems to be little change in how frequently searches are conducted for Cochrane specialised registers, with around half of respondents conducting searches on a daily, weekly or monthly basis in 2008, and a similar number in 2020. More groups in 2020 reported searching with no fixed frequency, but only when time was available.

9.4 Summary points and commentary

- Both in 2008 and 2020, the vast majority of responding CRGs directly employed an IS as part of their team. However, the time available for the IS role has decreased: In 2020, 47% (18/38) of CRGs had an IS capacity of 0.5 FTE or less. In 2008, there were fewer CRGs with this low capacity (31%, 15/47). Conversely, the percentage of CRGs with 1 or more FTE IS capacity has dropped from 36% (17/47) in 2008 to 15% (7/38) in 2020.
- There is a great deal of continuity in the Cochrane Information Specialist community, with 73% (28/38) of staff having been in the role for more than 6 years in 2020, compared to 55% (26/47) in 2008). This can be seen as positive in terms of the skills, experience and stability in the community; however, it likely also indicates a lack of career development opportunities.
- While the number of FTE available for the IS role has decreased, the number and frequency of tasks carried seems to have increased. Involvement in most review production and group support

tasks increased compared to 2008. Over the years, tasks have also been added, e.g., PICO annotation, social media activities, and peer reviewing of search strategies.

- We only noticed a large reduction in two tasks: Handsearching and specialised register maintenance.
- Almost three quarters of groups were undertaking some form of handsearching activity in 2008. By 2020, the number had fallen to one fifth. It is unclear whether handsearching is still a valuable task for the 21% (9/42) of CRGs who continue to undertake it. The Cochrane review on the value of handsearching is now very out of date (Hopewell et al, 2007). It would be useful to update this review to assess whether handsearching is still beneficial to review production or maintenance of CENTRAL.
- Similarly, specialised register maintenance dropped from over 96% (45/47) of CRGs in 2008 to two thirds in 2020. This suggests either that some groups see little value in maintaining a register, or that the resource to do so is lacking.

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12 Appendix A Free text responses

12.1 IS Participation in Cochrane Networks – free text responses

12.1.1. In your opinion, what impact have the Networks had on the IS role?

- Very little
- The networks have had very little/no impact on our role beyond having meetings to attend. The IS's in my network participate in ad hoc reciprocal peer-review of search strategies - but we have arranged this between ourselves. This could have been achieved without the network structure. I suggested a discussion of search peer-review to the associate editor for one of our network meetings, but it didn't get picked up. I don't think that issues like search peer-review are a priority for the network.
- We conduct peer reviews for each other
- Very little impact
- Introduced us to other ISs in the other groups.
- I don't know
- As a freelance IS, I'm a little out of the loop. The network has had a negligible impact on my role.
- Very little. we tend to take a whole of Cochrane IS focus as it is a close community
- Minimal impact at the moment
- Minimal so far
- Hardly any.
- No impact, I'm afraid.
- No impact on the IS role
- The most noticeable difference is the development of search peer review within networks.
- Small increase in workload because of increase in emails, meetings, documents, etc., though I ignore most of them because they are of no benefit to me. Would be a major impact if I have to take on searches for other groups as has been suggested.
- The Network is an excellent resource to enable us to peer review our search strategies.
- So far, a rather limited one unfortunately. It has been difficult to muster up peer review within Network.
- Helped develop Search Peer Review.
- help locate another IS when I need second opinion
- Little as yet but it is good to have other IS support from the network this was better when we could have face to face meetings
- no real major impact. Through the network I have more contact with other IS, which is very helpful. That is an advantage.
- No impact.
- So far, a positive impact. We occasionally do peer reviews for each other, but I'd like to have more regular communications with my network IS colleagues and consider if/how we could move towards common practices within our role.
- Very little so far - we did start a search strategy peer review initiative but several of our members search their Specialised Registers for a review and so it doesn't lend itself to peer review.
- Not much so far, but occasionally we have consulted between IS of the different groups within the network
- None
- None
- None, as our network is not very engaged.
- It is a great resource to get IS support.

- I haven't seen much of an impact, although I work part-time, so it may be different for those that work full-time in other review groups.
- None
- Minimal - some collaboration around peer review, but not much other than that.
- They've helped foster a sense of unity. It feels less like I'm working alone.
- Very little
- They have provided a pool of peer reviewers for search strategies.
- It's been useful to have my searches peer-reviewed by other IS with a similar specialism. Unsure why I hadn't done this before. Good for sharing expertise, but I'm not certain that constitutes Impact (with a capital I)
- not much, so far
- Peer reviewing searches
- They have been useful in standardising some procedures and bringing together groups/sharing experiences etc.

12.1.2 Do you have any suggestions for how the Senior Editor, Associate Editor and Network Support Fellow could better support the Information Specialist role?

- Unsure, doubt they can as it is a specialised skill set. Maybe supply some funding.
- Not really - sorry!
- No
- Not at this time.
- A central Information Specialist unit might be more feasible than every group needing their own.
- Possibly by facilitating the peer review of search strategies within and between networks.
- No
- Could consider how the IS resource across a Network might be shared in order to increase efficiencies, relieve pressure on struggling groups, enable more team working between IS and provide professional development opportunities.
- leave us alone
- Not sure...
- Help with initiatives specialist to IS as they happen
- no
- none
- Making sure that if there are changes to Cochrane software and infrastructure someone double checks whether IS use the functionality that is due to change and what impact it might have.
- keep us informed of what is going on
- I don't know whether our Network senior editor knows about the CRS, Screen4Me or the training and skill that is necessary to perform the IS role. [Senior editors] might benefit from having some training so that [they] can understand the role and work better.
- No
- Networks should have an IS that can oversee the activities of the different groups and actively promote the implementation of good practices. Probably seconding part-time IS working for one of the groups would be the best way to achieve that.
- Ensure that there is continued CET support for PICO annotation, as there is not much time for this in my part-time hours. (I know I work also for CET in this capacity, but I am also thinking of other IS's who don't have much dedicated time for annotation.)
- Our Information Specialists have been very experienced and have not required network support
- No
- Not a clue, I'm afraid! I'd like to know, though.

12.1.3 Does your Network collaborate with Cochrane Centres or Fields? If yes, please state which Centres/Fields and the form of collaboration, e.g., shared training etc.

- Cochrane First Aid (I think!)
- Nordic Cochrane center
- There has been a recent move to engage with a selection of fields, but I am not sure which ones.
- Cochrane US - we participate in meetings and have presented on our prioritization process to the rest of the group
- NZ Cochrane
- Cochrane Nutrition
- Not a lot of collaboration, but we have published two reviews authored by the First Aid field.
- Nutrition.
- Network started a series of meetings with Fields to learn more about their activities, and connect mutual interests.
- Neuroscience
- most often we at Skin communicate with the Nursing and Child Health Fields, informing them of publication by us of titles relevant to their areas
- Cochrane Chile and Cochrane Ecuador.
- Currently co-operating with Cochrane Centres Cologne/Düsseldorf working on the Covid-19-Register. Also co-operating with Cochrane Austria with giving workshops
- Translation and training

12.2 Training and support – free text responses

12.2.1 Please comment on the career development opportunities for Information Specialists within Cochrane:

- I don't know. We currently do not have an Information Specialist
- The best opportunities are provided via the exec, and secondment opportunities to Cochrane centrally, e.g., IS Support. It has often seemed that the only way to progress is to become a systematic review or ME (as this is considered by some a more senior role which it shouldn't be). This is a real shame.
- I wish the role was centrally funded and organised, so that very experienced people are retained in the long-term even as Groups change and/or move host institution.
- Although there are opportunities (though fewer because of Covid), lack of funding usually prevents me from attending.
- Thank you for the journal clubs which are always excellent but with the cancellation of national and international events in Cochrane there is very little training for IS at present within Cochrane - you have to seek it elsewhere. If there is no funding for training available within your Cochrane group and no within Cochrane training available things may start to stagnate?
- There is not a formal path for promotion within Cochrane.
- There are useful training opportunities. It is difficult to provide genuine career development within a defined role in Cochrane. There could be more opportunities for learning about new methods and conducting research/research skills however this would need protected time away from core IS tasks.
- I could use more training in searching for specific study types
- This was a difficult one. I feel supported by the IS support team, I attend the journal clubs where I can and look for opportunities within Cochrane (Misconduct Policy, etc.), but if there are

opportunities, I'm not especially aware of them. the Day With an IS GoToMeetings were great, though!

- We do see some career developments within Cochrane but feel they are offered during times that are not suitable in our time zones.
- There are plenty of training resources & projects/groups to get involved with - but essentially there is no career structure for ISs in Cochrane, and no obvious pathway for progression.
- But given that most Information Specialists are employed by a specific CG and by different organisations, I don't know how this can be addressed.
- Serious lack of pathways to conduct IS research in Cochrane
- Ongoing advocacy for the value of the IS role is essential, whether within individual review groups, networks, and across Cochrane.
- I think the opportunities lie within the individual Groups and in some cases the institutions to which they are associated
- No prospect of promotion unless you leave.
- Not sure. There is plenty of scope to take on new tasks and learn new skills, but not many to increase your level/salary.
- Probably not within Cochrane. It's a pretty flat structure.
- Hard to say
- From interactions with previous Information Specialists there seemed to me a number of PD opportunities across Cochrane
- I actually do not know, I would like to increase my experience as acting Information Specialist but most of the training is self-taught and I do not know if it is enough. Surely, I would appreciate if Cochrane would organize training webinars/meeting (if not already done).
- No idea as I am fulfilling IS role but am not credentialed and consider myself primarily an epidemiologist
- I don't know
- I've heard some of the IS within the US Network say that there are not enough trainings for them, but they are specifically referring to US trainings. I know they would be very interested in Cochrane trainings that they could take.
- As I am not employed by Cochrane directly, I can't answer some of the questions
- Increasingly so. The rapid evolution of the digital environment has extended the types of activities in which Information Specialists can become involved and hone skills
- I'm not really aware of career development opportunities for Information Specialists within Cochrane. But I am also not sure what such a career development opportunity would entail.
- I really don't know.
- At our university Information Specialists are employed by the medical library
- There are very few opportunities for advanced training; we need mentoring and support to grow skills for additional staff to have searching skills
- Obviously subjective but I feel the opportunities to become involved in different aspects of IS work are greater now than in the past.
- Don't know

12.2.2 Does the Information Specialist role get enough support within Cochrane?

- I don't know. We currently do not have an Information Specialist
- Support is provided for anything new that Cochrane wants us to take on, but it is assumed we can be required to take on anything, and there is no interest in supporting our primary searching role.

- Mainly due to the cancellation of national and international meetings over the past 12 months there has been a real lack of Cochrane training for IS available. Info science is moving rapidly - really important to keep everyone up to speed - with the increase in online meetings at present Cochrane are missing a great opportunity to update IS on RevMan Web, CRS Developments, trials reg searching, clinical study report searching, citation searching, etc. A lot of universities are scared to release funds for training purposes at present - shouldn't have to pay for this ourselves outside of Cochrane. It could be another 12 months before any in-person training is available.
- Our group has not had an IS for many years. Nobody seems to care.
- Being in [a different time zone] I get little support. The IS team are supportive but it is difficult with different time zones and lack of face-to-face meetings. I really need help with CRS when I was first importing the register as there are problems with it now that could have been avoided
- Unsure
- Journal Club, Cochrane Information Specialist Support Team Digest, IS support per mail, webinars
- I've never felt like I could not approach a colleague, fellow IS or any other colleague within Cochrane, whatever their seniority, for help or if I have a question.
- Time zone difference makes it very difficult to get real time support.
- We have the support team & exec
- I am still relatively new to Cochrane so I do not have much in the way of institutional knowledge...but the PICO annotation project seemed to come as a directive from Cochrane Central with little consideration of IS' existing roles and duties. I have found it to be fairly impossible to fit in with my other duties.
- Although I was aware when the CRS was in development our IS had lots of issues that were seen as her making difficulties, but which turned out to be system bugs. The IS have been given tasks centrally e.g., PICO annotation, without discussion with their manager, so managers can't support them and are not informed about the project or its demands for work planning.
- I'd rather there was a Don't know option here. I do sometimes feel that we're the Cinderellas of Cochrane
- I think having a dedicated Support Team is brilliant.
- Good peer to peer support.
- In some areas, there is support. In other areas, such as training on systems such as CRS, the support is ad hoc and not comprehensive
- The support team are great if you have any issues but the role does sometimes feel quite isolated, I'd really like more training e.g. the recent IRMG day was really useful.
- From my understanding, there are a number of groups the Information Specialists can tap into to get support for their profession (e.g., IS Journal clubs, exec boards, list servs etc.)
- It is the first time I have been contacted in the role of acting IS, so in my experience I would say that Cochrane could and maybe should support more.
- Have found IS support in carrying out my activities to be very helpful
- I don't know what kind of support is available, and I'm not sure if they know either, given we are a new Network.
- It would be interesting to encourage more participation in international Information Specialists and network activities Cochrane through workshops or other training and discussion groups.
- Occasionally there are trainings organised by Cochrane
- We Partner with Cochrane Canada, who provides support and training and oversight to our Information Specialist who is new to systematic review search strategies and has limited access to the necessary databases

- Support and informational material are generally geared towards IS working for Review Groups. There seems to be no clear guidance on the role of other IS. That can be a good thing (more freedom), but it can also be isolating, because there is no sense of shared tasks or issues for non-Review Group IS.
- It could always be better.
- The IS would need to maintain contact, but I think support would be available on request
- These would only be relevant if we had an IS, which we don't

12.2.3 What training and support do Cochrane Information Specialists need over the next twelve months?

- Increased training in automation tools
- I think we need to consider whether data management for the reviews is part of our remit. Authors need help with managing the process of screen/study selection & use of tools such as Covidence. At the moment I probably get more queries about that sort of issue, and questions about PRISMA diagrams, than I do about search terms.
- Training in searching for specific study types
- Training on the new EMS and any changes to Archie and Revman
- We personally need training and support in CRS, Covidence, RevMan Web, the new EMS to be able to support authors. Preferably during work hours.
- I don't know. We currently do not have an Information Specialist
- CRS WEB
- Training in qualitative review methods, working with RevMan Web and the new Editorial Management System
- Keeping abreast of Cochrane Strategic direction. Feels quite isolated in lockdown, but I expect this is the same for all roles
- hands on, face to face (if possible :) training of CRS web it has good functionality but I don't have to confidence in it to maintain my specialised register in it and I would like to as Procite is a dying software
- It would be nice with a webinar/online workshop for IS on RevMan Web
- CSR searching, increased collaboration among ISs within networks
- YHEC ran some really excellent courses on searching for clinical study reports and citation searching. I can really highly recommend them - Cochrane could consider commissioning YHEC to run some courses for IS? (I have no connection to YHEC and have no shares in them - if they have any?) They also run complex searching and other courses - not sure what else... Any/all may be beneficial to make sure skills are up to date. Many areas evolving/moving rapidly - including complex searching getting even more complex. I would recommend a 'getting the most out of CRS' course would go down well as many people, myself included, are not making the most of it.
- Would be good to have a monthly session for new IS, to learn more on specific topic such as how to determine if the search is sensitive enough, how to reduce a very large number of results. Also more training on searches for qualitative reviews as we are preparing more of them.
- Use of the new editorial Management system; Cochrane register of studies CSR
- More dedicated time for IS activities
- Possibly substantial training depending on previous Cochrane experience.
- I would like a review of the tools we are required to use daily (CRS, Covidence, PICO annotator etc.) that focused on identifying deficiencies and prioritised resolving them to make our work easier. I'm always happy if people share best practice in using them so I can learn from others' experience. I

would also like to see strong support for ISs as a group as we move to the new EMS and RMW. It would be good if someone could lobby for those tools to be as user-friendly as possible for ISs. Crucially ensuring that they don't have less functionality than current tools.

- I think it would be useful to have regular IS Zoom meetings to discuss relevant issues and provide training. The workshops at the Oxford symposium (the only one I've attended as been in post 2 years) were really useful so it would be great to have more of that online throughout the year especially for new Information Specialists.
- I think that it would be very useful if Cochrane could organize training webinars and meetings (even basic ones, personally speaking, as most of what I know has been learned as self-taught).
- Unfortunately, Cochrane Child Health is not really in a position to comment on this. I guess as momentum is growing with new SR concepts such as living SRs, further training in the surveillance methods to support them would be beneficial?
- Advanced searching workshops in finding different study types would be useful. The webinars arranged by Cochrane are great, together with the newsletter and email list.
- Development of methodological filters
- I am regularly visiting Workshops offered by the YHEC which are very useful
- I would be interested in training for objective search strategy design, i.e., not just using text analysis tools, but applying statistical measures to decide which search terms to include.
- PICO annotation
- Search for nonRCT
- Search strategies for complex topics when you cannot easily define search concepts or apply PICO. Search strategies for broad and vague topics when you have to use more broad and more general search terms which result in retrieving too many records.
- Searching methods and strategies in Cochrane reviews
- Shared practices on how to facilitate searches with new search methods
- Support Access to databases and the document libraries
- Whatever they feel would be most beneficial - it would be really helpful if specific needs could be shared with Therese Docherty at Cochrane UK who is co-ordinating our programme of training and support currently planned to be delivered 'virtually' during these times of pandemic to meet such needs.

1.a.1 Do you have any other suggestions for how Cochrane could better support Information Specialists?

- The formation of some sort of IS research committee to help with designing and conducting research in searching
- Search methods research is scattered across various methods groups - qualitative group, prognosis group etc. The IRMG only covers search methods for standard intervention reviews. We would benefit from some co-ordination that pulls together the research & guidance from multiple methods groups in one place.
- Support for other time zones as recordings of webinars aren't always ideal. A dedicated support person in our time zone to assist those in the southern hemisphere.
- Move focus to a generally global view rather than UK centric by asking and listening to all IS
- A recognition that it is an important, professional role and not a junior/unskilled admin role.
- Negotiate access to Chinese and other non-English language full-text databases. Fund translators to translate non-English language studies requested by review authors. Curb the efforts of methodologists (and others) to impose ever more requirements for conducting and reporting searches. Abolish the PICO project.

- Peer review of search strategies is incredibly important to improve a review's methodological rigor - but it is quite difficult to get one within my network (I have since made other arrangements). I think Cochrane should require it for reviews but will have to make some formal commitment to hiring additional Information Specialists at Cochrane Central to bring it to fruition. In my experience, there is not enough FTE at the review group or centre level to address the need.
- The IRMG doesn't support Cochrane ISs and it should. It would be good to be supported in informational research
- Regular small group zoom meetings for teaching CRS
- Increased training opportunities, perhaps by partnering with CHLA, CILIP, MLA, etc.
- Thank you very much for running this survey - I think even having these facts and figures could help greatly.
- It is great to see the peer-support that IS provide in the Network, although I barely benefited from it.
- I'm afraid I can't answer all the questions as we are changing the model for IS support - and relative importance of tasks etc. very much depends on current balance of work.
- I think ISs have a high profile in Cochrane and the work is rewarding and interesting. It's been a shame we have missed our face-to-face meetings as those are great for building a sense of community. Maybe the Networks could host some online meetings specifically for their ISs? Or just a coffee morning like the MEs have had?
- I feel that Managing and Co-ordinating editors do not always fully understand the skills and expertise of Information Specialists, and perhaps Cochrane as an organisation might promote this understanding. Cochrane could also acknowledge the expertise and intellectual contribution made to reviews by awarding Information Specialists authorship.
- I personally feel that my role needs more hours in order to complete tasks e.g., PICO annotation. I don't know how many other IS are in the same position, but this seems to be a funding issue.
- Other than supporting ISs, which is obviously very important, I think that it could also be important and useful to inform Cochrane Review Groups and Fields about the opportunities of an IS and how to become one of them for those, like me, who just act like one. Additionally, if there is not yet (which I frankly do not know), it would be useful to create some sort of register to allow authors (even other than Cochrane authors) to have the support of an IS if required: this could help ISs gain some visibility and, obviously, career progression.
- Often as entity support is limited, the availability of funds to support an Information Specialist to attend a conference or PD day is often absent. Perhaps a general fund to support Information Specialists to attend the colloquium or other relevant seminars could be helpful when their entity does not have the resources?
- A more higher-level/centralised support for evaluating search methods across Cochrane might be useful. E.g., Centralised collecting of data concerning the database coverage or sensitivity of database searches would create a more complete and Cochrane-specific picture of relevant information sources. This information would in turn would be useful to improve search efficiency in the long run.
- Being on the periphery of the day-to-day IS work, this is not so directly relevant to me. However, I appreciate the IS digest and other activities (Journal Club, for example) that the IS Support Team provides.
- Is there any possibility to financially support Information Specialists from less developed countries to attend colloquiums?
- It would be good to meet and exchange more often - to receive invitations for internal trainings and workshops.

- Linking, communicating and receiving support from Cochrane review group or central Information Specialists
- Materials provided in Cochrane are enough. Perhaps conduct more webinar for training
- Open the possibility of online training workshops in other languages
- Workshops can only take training to a certain theoretical level, training needs to be one on one mentoring and coaching with real search strategies. It will require investment in time

13 Appendix B: Additional Tables

13.1 IS role and tasks

Which databases are searched routinely (i.e., in the majority of reviews) for author teams?	CRG (n=42)		Field (n=5)		Centre (n= 26)		Total (n=73)	
Specialised register	23	55%	0	0%	2	8%	25	34%
CENTRAL	38	90%	3	60%	17	65%	58	79%
MEDLINE	40	95%	3	60%	19	73%	62	85%
Embase	36	86%	3	60%	13	50%	52	71%
ClinicalTrials.gov	31	74%	2	40%	14	54%	47	64%
WHO ICTRP	31	74%	2	40%	12	46%	45	62%
CINAHL	16	38%	2	40%	10	38%	28	38%
PsycINFO	12	29%	1	20%	8	31%	21	29%
BIOSIS	2	5%	0	0%	1	4%	3	4%
Scopus	4	10%	1	20%	7	27%	12	16%
Web of Science	13	31%	1	20%	8	31%	22	30%
AMED	3	7%	0	0%	2	8%	5	7%
LILACS	8	19%	0	0%	6	23%	14	19%
Global Health	2	5%	0	0%	0	0%	2	3%
Searches for author teams are not undertaken at the group / entity	1	2%	2	40%	3	12%	6	8%
Other	9	21%	1	20%	2	8%	12	16%

Table 22: Overview of databases regularly used to support author teams (bold = MECIR databases (Higgins et al, 2021))

Who PICO annotates the reviews for the Cochrane entity?	CRG (n=42)		Field (n=5)		Centre (n= 26)		Total (n=73)	
Information specialist	26	62%	1	20%	1	4%	28	38%
Managing Editor	4	10%	0	0%	2	8%	6	8%
Editorial Assistant/Assistant ME	2	5%	0	0%	0	0%	2	3%
Central PICO team	14	33%	0	0%	2	8%	16	22%
Not applicable to Cochrane entity	2	5%	4	80%	16	62%	22	30%
Other	2	5%	1	20%	1	4%	4	5%
Skipped	0	0%	0	0%	6	23%	6	8%

Table 23: Overview of PICO annotation by Cochrane entity type

13.2 Specialised registers

If the group or entity maintains a specialised register, who within the group works on it?	CRG (n= 28)		Field (n=2)		Total (n=30)	
Information Specialist	28	100%	1	50%	29	97%
Assistant Information Specialist	1	4%	0	0%	1	3%
Editorial Assistant	2	7%	0	0%	2	7%
Managing Editor	0	0%	0	0%	0	0%
Other	0	0%	1	50%	1	3%

Table 24: Contributors to the specialised register

Which sources are searched to keep the specialised register up-to-date	CRG (n= 28)		Field (n=2)		Total (n=30)	
CENTRAL	18	64%	1	50%	19	63%
MEDLINE	21	75%	1	50%	22	73%
Embase	12	43%	0	0%	12	40%
CINAHL	8	29%	0	0%	8	27%
PsycINFO	8	29%	0	0%	8	27%
BIOSIS	1	4%	0	0%	1	3%
Scopus	1	4%	0	0%	1	3%
Web of Science	3	11%	0	0%	3	10%
AMED	4	14%	0	0%	4	13%
LILACS	2	7%	0	0%	2	7%
Other	11	39%	1	50%	12	40%

Table 25: Overview of databases searched for the register

What additional searches (if any) are conducted for the register?	CRG (n= 28)		Field (n=2)		Total (n=30)	
Handsearching paper journals	1	4%	2	100%	3	10%
Handsearching electronic journals	5	18%	1	50%	6	20%
Searching of conference proceedings	9	32%	0	0%	9	30%
Grey literature sources	4	14%	0	0%	4	13%
Trials registers	7	25%	0	0%	7	23%
Web searching	3	11%	1	50%	4	13%
Citation searching	3	11%	1	50%	4	13%
No additional searches	11	39%	0	0%	11	37%
Other (please specify)	4	14%	0	0%	4	13%

Table 26: Overview of additional search methods for register maintenance