

Results from Cochrane's living systematic review pilot

Anneliese Synnot
Research Fellow, Cochrane Australia

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- I have no actual or potential conflict of interest in relation to this presentation
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About the LSR pilot evaluation

- Aims
 - Explore experiences and assess feasibility and acceptability to inform improvements
- Participants (n = 27)
 - Authors, editors/publishers, information specialists, peer reviewers
 - Involved in 1 or more of 6 LSR pilots (3 Cochrane, 3 non-Cochrane from LE Network)
- Methods
 - 1 to 3 semi-structured interviews over the course of pilot
 - Monthly online surveys to capture workload prospectively
 - Thematic and descriptive analysis
- Timeframe
 - September 2017 to August 2018



About the Cochrane LSRs

	Anti-coagulation in people with cancer (3 related reviews)	Fruit and vegetable intake in children	Delayed antibiotics for resp. infections
Search/other support	Info specialist to develop and run searches; ongoing LSR methods support		
Funding	Part time RA (authors)	Part-time RA (authors)	No
Search frequency	Monthly for databases/registries; 6 monthly for 'other' sources		
Technological enablers	RCT Classifier and Cochrane Crowd to identify RCTs		No
Status updates	Monthly update via 'What's New' (i.e. search date, no. studies found, review plans)		
Integrate new evidence	Full re-publication of review (new citation); standard editorial processes		
Trigger for integration	<i>New evidence affecting conclusions*</i>	Every 4 months	<i>New evidence found*</i>

About the non-Cochrane LSRs

	Zika virus outcomes	Guideline adherence in TBI	Epidemiology of TBI
Search/other support	Librarian to develop searches	Search specialist to develop and review searches; ongoing LSR methods support	
Funding	3 author positions	Some author funding; part-time LSR methods support	
Search frequency	Daily or monthly	Three-monthly	
Technological enablers	Automation/ML for study ID & some data outputs	Nil	
Status updates	Daily updates via website	3-6 monthly updates of new studies (online appendix)	
Integrate new evidence	<i>New version (linked DOI); standard editorial processes*</i>	<i>Full re-publication of review or short commentary (new citation); standard editorial processes*</i>	
Trigger for integration	<i>Every 6 months*</i>	<i>New evidence affects conclusions (but less than yearly)*</i>	



Workload during pilot period

- No. of studies in 'baseline' publication
 - Median: 20 studies (range 7 to 101)
- No. of new studies since 'baseline' publication (time period: 6 mo to 3 yrs)
 - Median: 7 studies (range 0 to 96)
- No. of times reviews re-published during pilot period
 - 1 CR re-published twice; two non-CRs published online summaries of new studies
- No. of citations screened per month (Cochrane LSRs only)
 - From mean 3 citations (range 1 to 10) to 336 citations (range 154 to 671)
- Time spent per month (Cochrane LSRs only)
 - Managing Editors: Minimal (i.e. 15-30 mins/mo) IF no studies found
 - Information Specialists: Workload consistent (and less related to size of yield) i.e. 1-2 hrs/mo
 - Authors: Dependant on yield and integration decision (i.e. 10 mins/month to several days/mo)

How people felt about contributing to an LSR

- Majority of people highly enthusiastic and positive about the experience
- Being part of an LSR was....
 - Exciting
 - Interesting
 - A fantastic learning opportunity
 - Great chance to contribute to something new
- Many had concerns about sustaining their contribution post-pilot
- But equally, plenty of practical suggestions to support scale up

“I felt very involved in contributing to the paperwork and the practical logistics of how an LSR should be done and what it would look like. It’s been very exciting.”

Benefits of LSRs

1. Rapid identification and translation of evidence

“The evidence base for our topic was very small [but] there is now a large amount of information to inform practice, many of which have been integrated, highlighting the live ability of research.”

2. Cochrane is more responsive and ‘ahead of the game’

“We (Cochrane) can be more reactive. When new information is available, a group can respond and update review; reducing the lag and improving the responsiveness of Cochrane reviews. Overcoming the criticism that we are too slow.”

3. Improved accountability and commitment to the review

- Strict timelines with clear responsibilities meant people prioritised review tasks

Enablers of LSRs

1. Heavily reliant on authors/editors/publishers being:

- Skilled
- Enthusiastic
- Committed
- Organised
- Responsive
- In close communication

“The LSR team were constantly providing support, encouragement, pushing, motivating and keeping everyone moving. To what extent will that be there in the future?”

2. Support and guidance from Cochrane’s LSR team

“The involvement of experts built the legitimacy of LSR and increased the feasibility of the model.”

3. Learning, support and advice from the Living Evidence Network

Efficiencies in LSRs

1. Repetitive nature of tasks
 - Processes became more familiar and streamlined over time
2. Team responsiveness
 - *“Efficient team is key to feasibility. Need speed of communication to make crucial decisions and progress. Big communication gaps cannot occur.”*
3. Automation in searching
 - Database auto-alerts, Covidence, RCT Classifier and Cochrane Crowd all seen as time savers
 - Search yield reduced by 38% and 51% for the 2 Cochrane LSRs using Classifier/Cochrane Crowd
4. Having an information specialist
 - Author teams without ongoing search support described ongoing search and screen issues/burden

Challenges of LSRs – part I

1. Ongoing workload (for authors in, particular)
 - Requires large time investment and immediate availability
 - Little flexibility (or let-up) in monthly timeframes and tasks
 - At times stressful and frustrating

2. Issues with search and screening
 - For ISs search set-up intensive (resulting process was efficient, reliable and predictable)
 - For ISs ongoing workload was still considerable
 - All non-Cochrane teams felt search tasks were burdensome
 - Some non-Cochrane teams felt they lacked resources, technology or tools to manage frequent searches

“Without extra resources, this level of engagement and investment is probably unsustainable.”

“There is not a lot of flexibility in the approach - What happens if leave is taken by key member?”

“A traditional SR search update takes one to five days and then you are done for two years. With LSRs you receive constant emails with new citations over the month (which you need to organise) and then you need a morning of work to process the citations and pull them all together for the authors.”

Challenges of LSRs – part II

3. Editorial and peer review challenges

- For Managing Editors, peer reviewers, copy editors and quality screeners – tasks essentially the same but the challenge is fast turnaround +/- more frequent review
- Many questioned how ‘doable’ the workload would be post-pilot without funding

“The turnaround time is difficult. It’s hard enough when you get 2-4 weeks with other manuscripts, and it is already more time-consuming because it is a Cochrane Review.”

4. Publication issues

- Inability to clearly highlight what was new with each monthly update (Cochrane)
- Re-publishing reviews triggered new citation, negatively affecting citation counts (Cochrane)
- Delays experienced during editorial process hampered teams’ ability to present current information (non-Cochrane)

Improvements to support scale-up in Cochrane

1. Additional guidance (for all contributors)
 - Both ‘how to’ guides and policies and procedures
2. Publishing
 - Implementation of the Update Classification System
 - A versioning system for updated reviews without major changes to conclusions
3. Technology
 - Expanding and better integrating the new technologies to reduce human investment
4. Resources and support
 - Ongoing funding/resources for contributors and an LSR support role
5. Knowledge translation
 - Coordinated efforts to promote LSRs to potential users and funders

Conclusions

- Considerable enthusiasm from contributors about the potential benefits and value of LSRs
- LSRs appear to be both feasible and acceptable
- But key sustainability challenges need to be addressed
 - Ongoing resources and support for contributors
 - New publication models

