



**It's Alive!**

## The birth & the life so far of the Cochrane Living Systematic Review

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# Living systematic reviews

Anneliese Synnot  
Cochrane Australia, Monash University

Trusted evidence.  
Informed decisions.  
**Better health.**





# Context

- **Increasing volume of primary evidence (75 trials a day)**
- **Substantial time to produce SRs (mean 20 months)**
- **Traditional reviews non-responsive (median time publication to inclusion in SR: 2.5 – 6.5 years)**
- **SRs quickly become obsolete (median 5.4 years before conclusions change)**



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Policy Forum

# Living Systematic Reviews: An Emerging Opportunity to Narrow the Evidence-Practice Gap

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**The Bridge from Evidence to Practice**

**Summary**

Elliott 2014 PLoS Med 11(2)

# What is a living systematic review?

We define an LSR as a systematic review that is continually updated, incorporating relevant new evidence as it becomes available. In practice, this means continual surveillance for new research evidence through ongoing or frequent searches and the inclusion of relevant new information into the review in a timely manner so that the findings of the systematic review remain current.



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# What is a living systematic review?

## A living SR is:

a systematic review  
that is continually updated,  
incorporating new evidence  
as it becomes available





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# What is a living systematic review?

**A living SR is:**

*a systematic review*

that is continually updated,  
incorporating new evidence  
as it becomes available





# What is a living systematic review?

## A living SR is:

a systematic review

- Not rapid, scoping etc ?
- Just interventional RCTs?
- Same methods as trad' SR?







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# What is a living systematic review?

## A living SR is:

a systematic review

that is continually updated,

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# What is a living systematic review?

## A living SR is:

a systematic review

that is continually updated,  
incorporating new evidence  
as it becomes available





# What is a living systematic review?

## A living SR is:

continually updated

- How frequently searched?
- How frequently screened?
- More than trad' Cochrane updates?
- Is each update a stand-alone source?



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# What is a living systematic review?

## A living SR is:

a systematic review

that is continually updated,

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as it becomes available





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# What is a living systematic review?

## A living SR is:

a systematic review

that is continually updated,

incorporating new evidence

as it becomes available





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# What is a living systematic review?

**A living SR is:**

incorporates new evidence

- How is it incorporated?





# What is a living systematic review?

## A living SR is:

incorporates new evidence

- What is new evidence?
- New data on existing trials?
- Grey literature (pre-prints)?
- Completely new drug?





**Guidance for the  
production and  
publication of Cochrane  
living systematic  
reviews: Cochrane  
Reviews in living mode**

Version December 2019



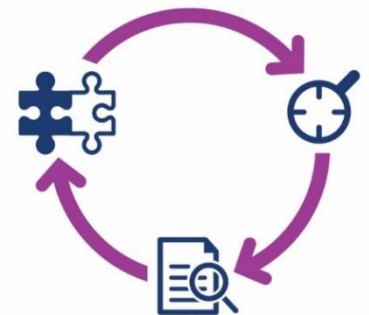
Trusted evidence.  
Informed decisions.  
Better health.





# Features of Cochrane LSR approach

- Applies to any review type (e.g. RCTs, qualitative)
- Retains core systematic review methods
- LSR-specific methods pre-specified in protocol
- Explicit and a priori commitment to frequent search & updating
- Starts with a standard ‘baseline’ review
  
- Searches = monthly
- Tell reader ‘what’s happening’ = monthly
- Re-publish the review = informed by the evidence



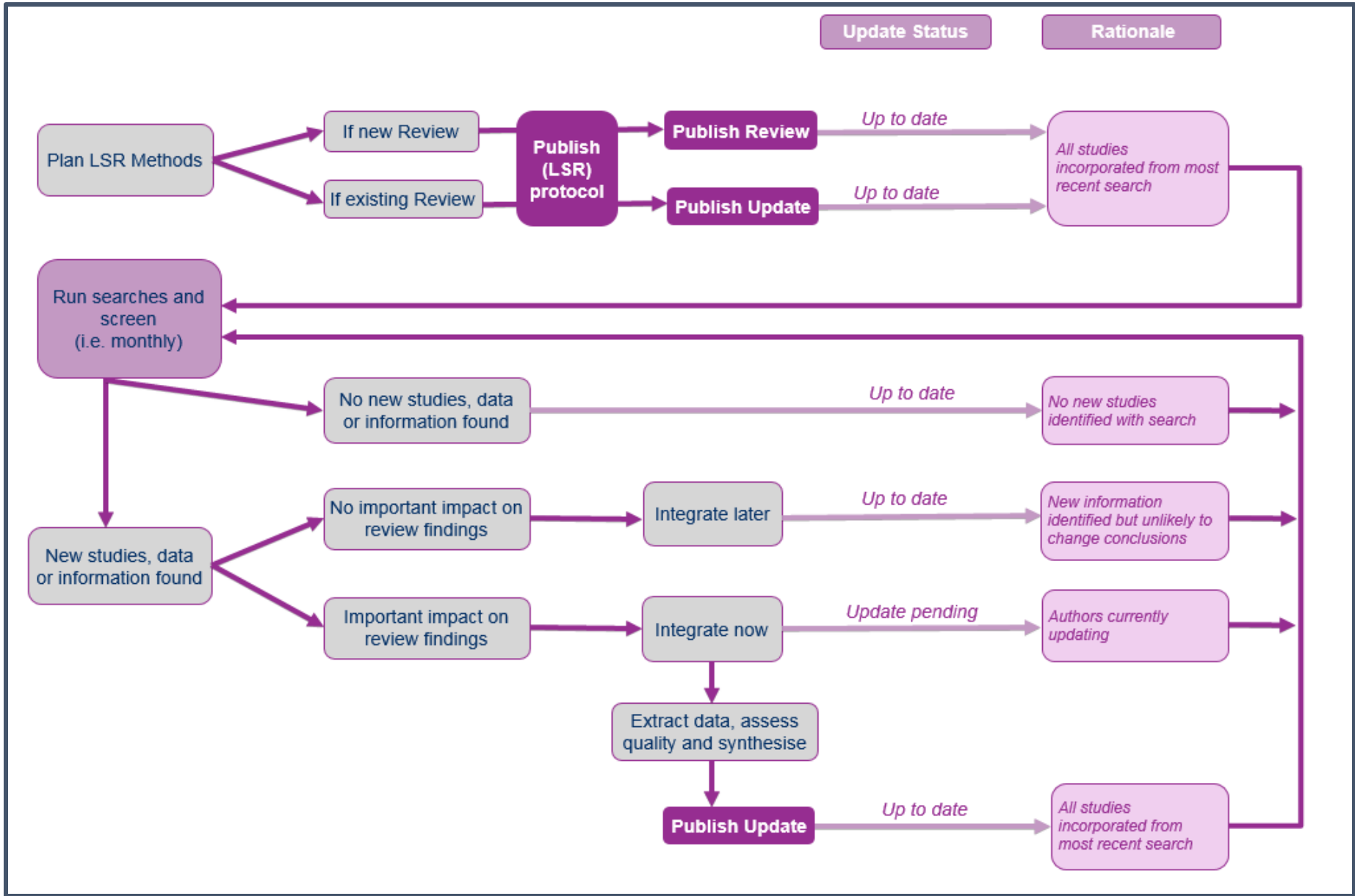


# LSR Publication model

## Conclusions

The evidence for effective interventions to increase eating of fruit and vegetables by children aged five and under remains sparse. Child-feeding interventions appear to increase the eating of vegetables by children (by 4.03 grams), but this conclusion is based on very low-quality evidence and is very likely to change when future research is undertaken.

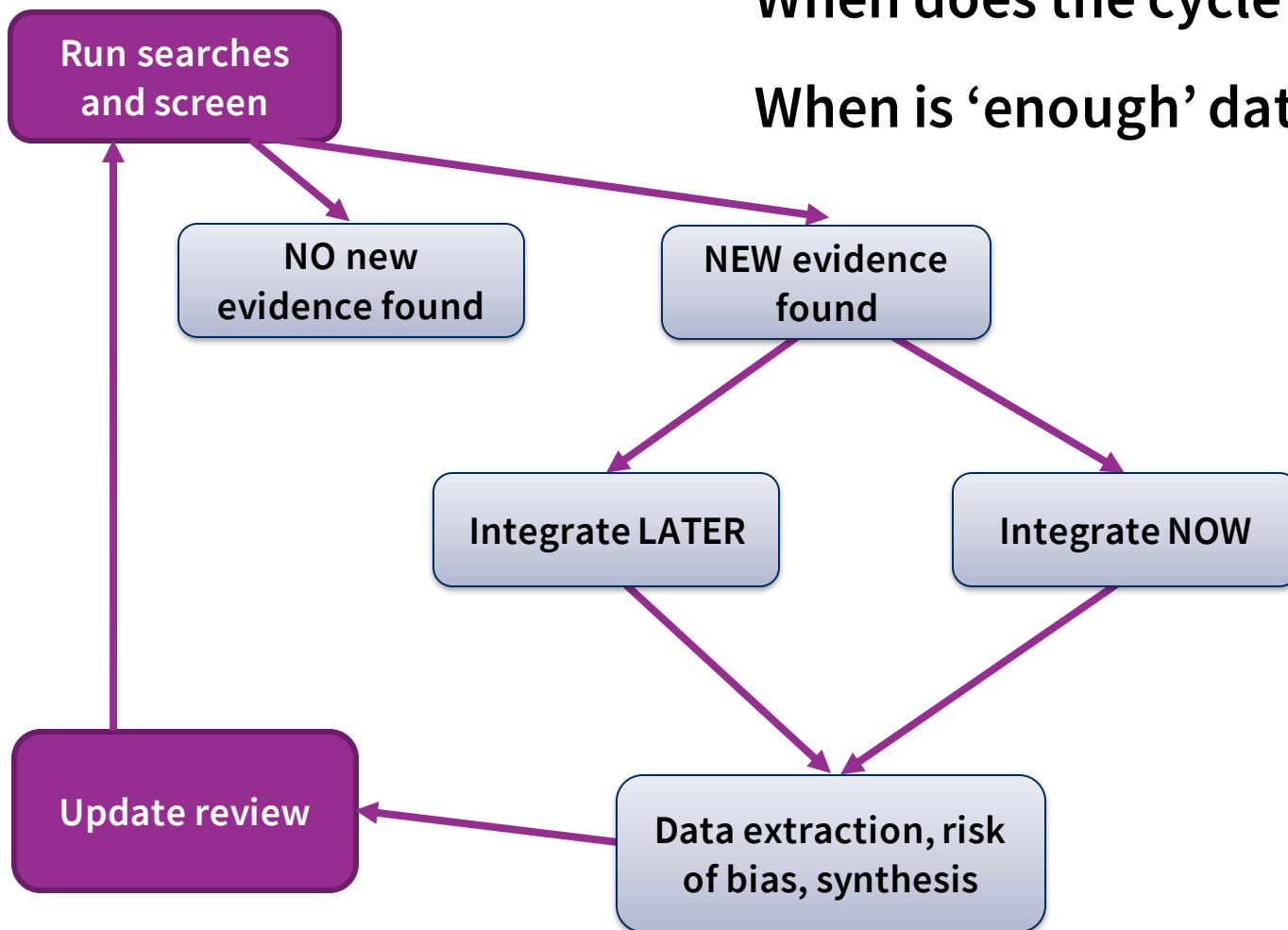
This is a living systematic review. Living systematic reviews offer a new approach to review updating, in which the review is continually updated, incorporating relevant new evidence as it becomes available. Please refer to the Cochrane Database of Systematic Reviews for the current status of this review.



# Basic LSR process

When does the cycle stop ?

When is 'enough' data ?







# Cochrane's LSR outputs (BC)

| Review title                                                                              | Authors                          | CRG   | Publicat'n       |
|-------------------------------------------------------------------------------------------|----------------------------------|-------|------------------|
| Three LSR on prevention and treatment on VTE                                              | Elie Akl,<br>(Lebanon)           | GNOC  | 2017-2018        |
| Delayed antibiotics in respiratory infections                                             | Geoffrey Spurling<br>(Australia) | ARI   | Sept 2017        |
| Interventions to increase fruit and vegetable consumption in children                     | Rebecca Hodder,<br>(Australia)   | Heart | Sept-Oct<br>2017 |
| Systemic pharmacological treatments for chronic plaque psoriasis: a network meta-analysis | Emilie Sbidian<br>(France)       | Skin  | 2020             |
| Conservative treatments for osteoarthritis (2 x protocols)                                | R Buchbinder                     |       |                  |
| Chemotherapy for NSCLC                                                                    | R Ferrara                        |       |                  |



Series: Living Systematic Review

# Living systematic review: 1. Introduction—the why, what, when, and how

Julian H. Elliott <sup>a, b</sup>  , Anneliese Synnot <sup>a, c</sup>, Tari Turner <sup>a</sup>, Mark Simmonds <sup>d</sup>, Elie A. Akl <sup>e, f, g</sup>, Steve McDonald <sup>a</sup>, Georgia Salanti <sup>h</sup>, Joerg Meerpohl <sup>i</sup>, Harriet MacLehose <sup>j</sup>, John Hilton <sup>j</sup>, David Tovey <sup>j</sup>, Ian Shemilt <sup>k</sup>, James Thomas <sup>k</sup>

Living Systematic Review Network

Show more 



Systematic Reviews

<https://doi.org/10.1016/j.jclinep>

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Research | [Open Access](#) | Published: 14 December 2019

## Feasibility and acceptability of living systematic reviews: results from a mixed-methods evaluation

[Tanya Millard](#) , [Anneliese Synnot](#), [Julian Elliott](#), [Sally Green](#), [Steve McDonald](#) & [Tari Turner](#)

*Systematic Reviews* **8**, Article number: 325 (2019) | [Cite this article](#)

1164 Accesses | 1 Citations | 9 Altmetric | [Metrics](#)



# Learning from LSRs so far

- Different work-load (frequent, small tasks)
- Different work-flows  
(need for excellent project management)
- Different academic credits, author recognition
- Different publishing models
- Different funding options



# Learning from LSRs so far

- **Difficult** work-load (frequent, small tasks)
- **Difficult** work-flows  
(need for excellent project management)
- **Difficult** academic credits, author recognition
- **Difficult** publishing models
- **Difficult** funding options





# When to consider an LSR

Could or should all SRs become living?

- ✓ The review question is a priority for decision making
- ✓ Certainty in the existing evidence is low or very low
- ✓ There is likely to be new research evidence
- ✓ (In pilots = Capacity and resources within author and editorial team to maintain an LSR)



## Further reading

Elliott JH et al. (2014) Living Systematic Reviews: An Emerging Opportunity to Narrow the Evidence-Practice Gap. PLOS Medicine 11(2): e1001603. doi.org/10.1371/journal.pmed.1001603

Mendeley library on Living Systematic Reviews:  
<https://www.mendeley.com/community/living-systematic-reviews-interest-group/>

Cochrane LSR community:  
<https://community.cochrane.org/review-production/production-resources/living-systematic-reviews>



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