



Living systematic reviews to living guidelines

Special Session
Global Evidence Summit
Cape Town 2017

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Trusted evidence.
Informed decisions.
Better health.





Declaration of interests

- **Cochrane**
 - Lead, Evidence Systems, Cochrane
 - Co-lead, Project Transform
 - Senior Research Fellow, Cochrane Australia
- **HIV clinician and clinical researcher**
 - Institution receives research and educational funding from public and commercial sources
 - No travel support, speakers fees or advisory boards
- **Covidence**
 - Founder, CEO



something to offer. Next year the *Oxford Database of Perinatal Trials*³ will be published by Oxford University Press in electronic form. Besides registers of published⁴ and unpublished trials and trials in progress or planned, the data base will include a library of trial overviews which will be updated when new data become available.

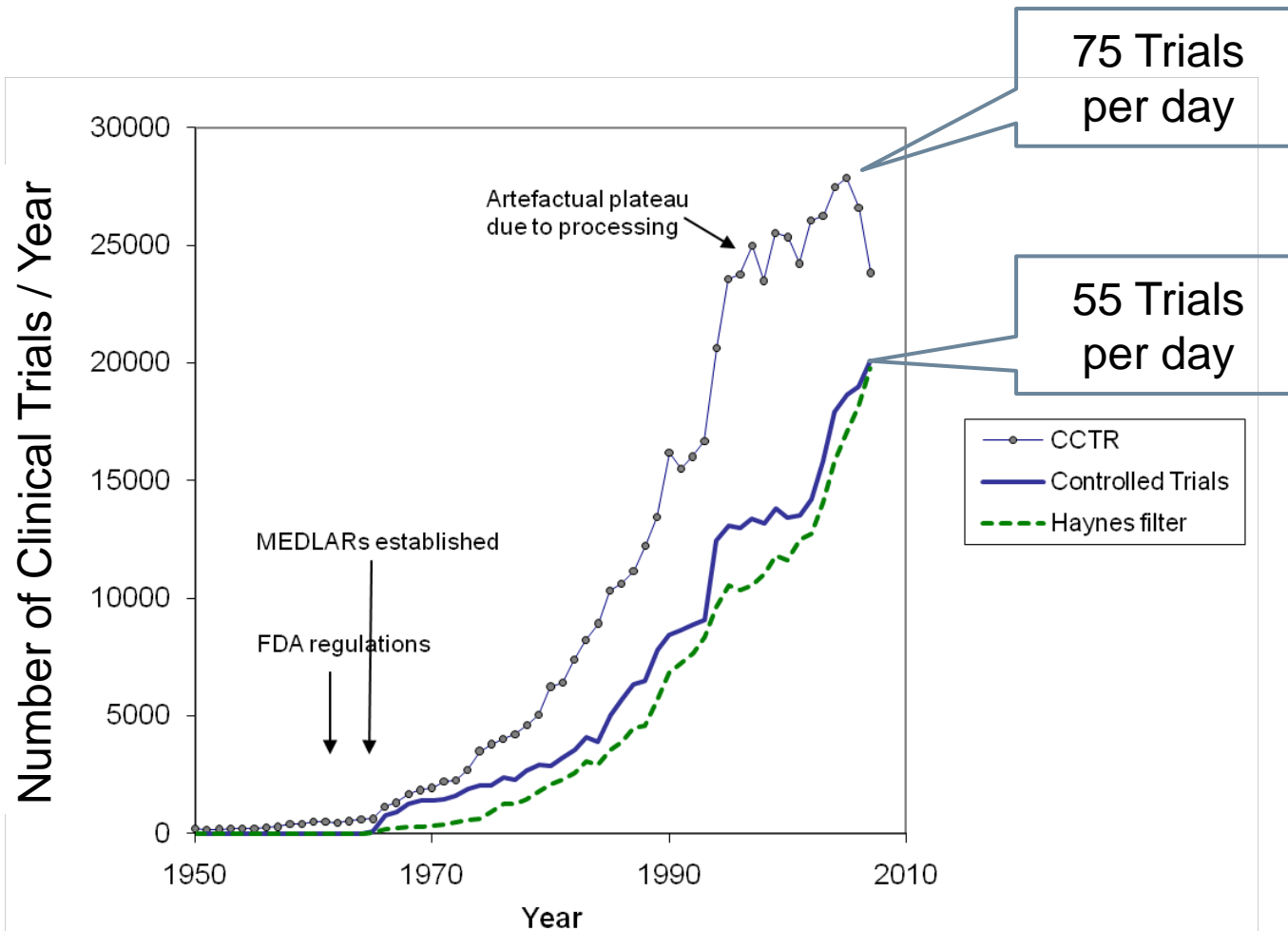
Oxford Database of Perinatal Trials,
National Perinatal Epidemiology Unit,
Radcliffe Infirmary,
Oxford OX2 6HE

IAIN CHALMERS

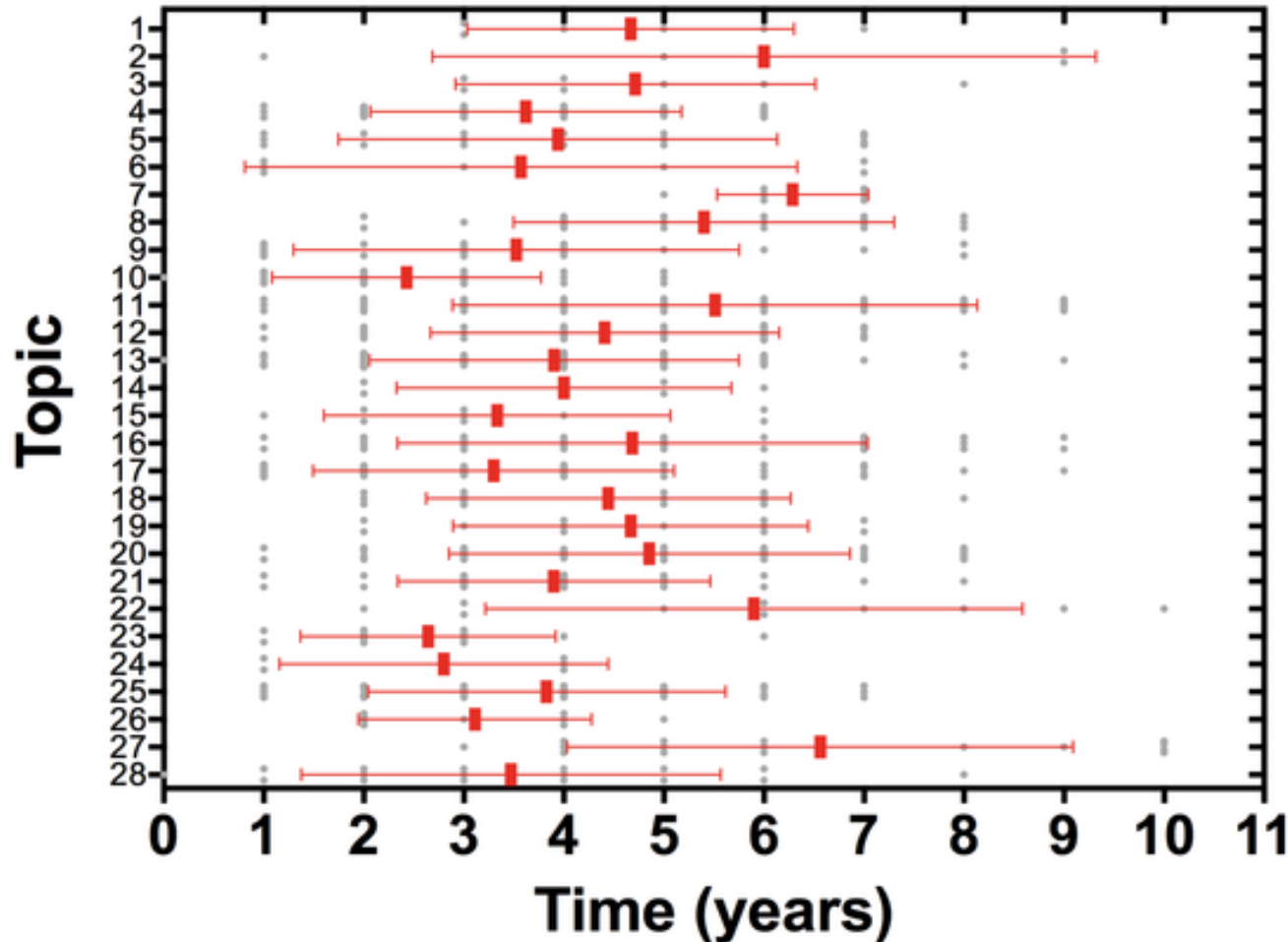
Policy Forum

Seventy-Five Trials and Eleven Systematic Reviews a Day: How Will We Ever Keep Up?

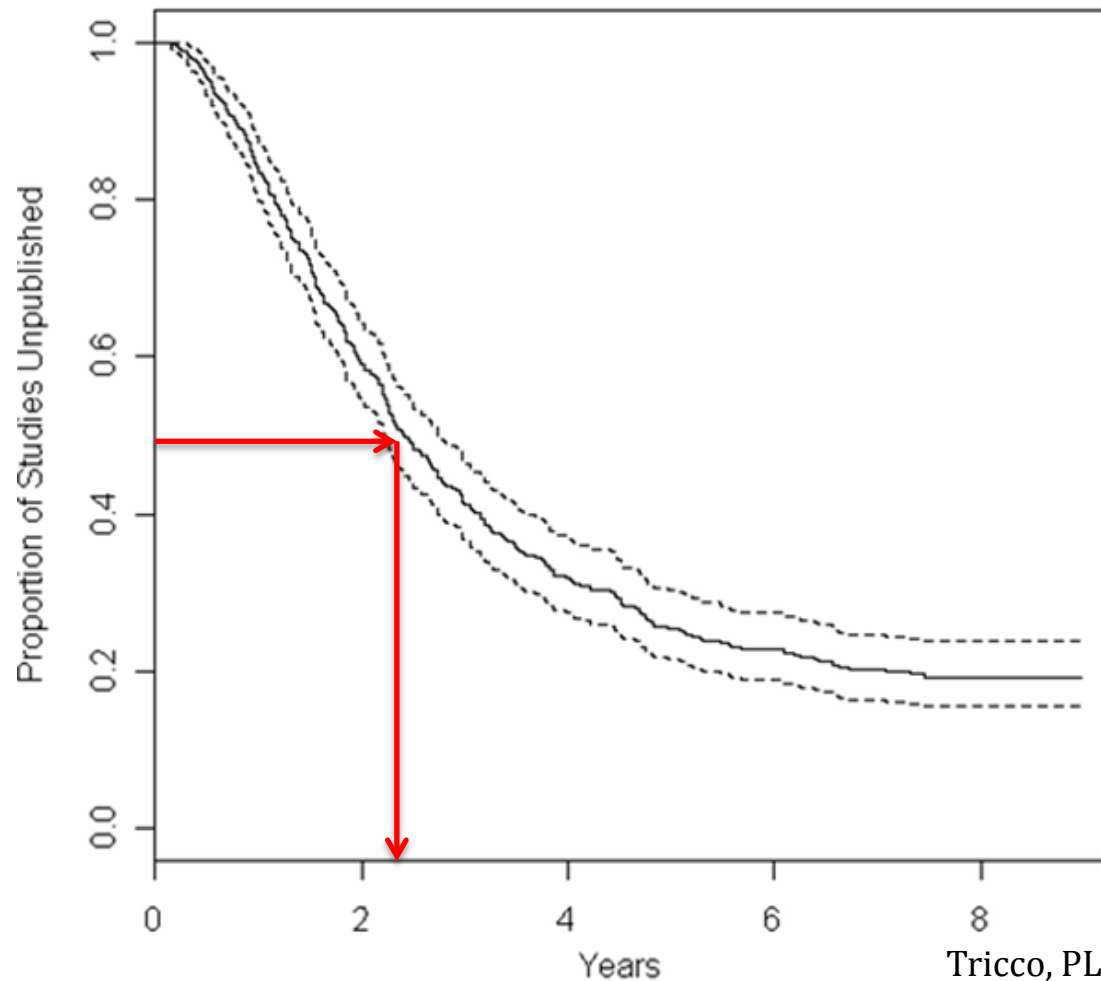
Hilda Bastian^{1*}, Paul Glasziou², Iain Chalmers³



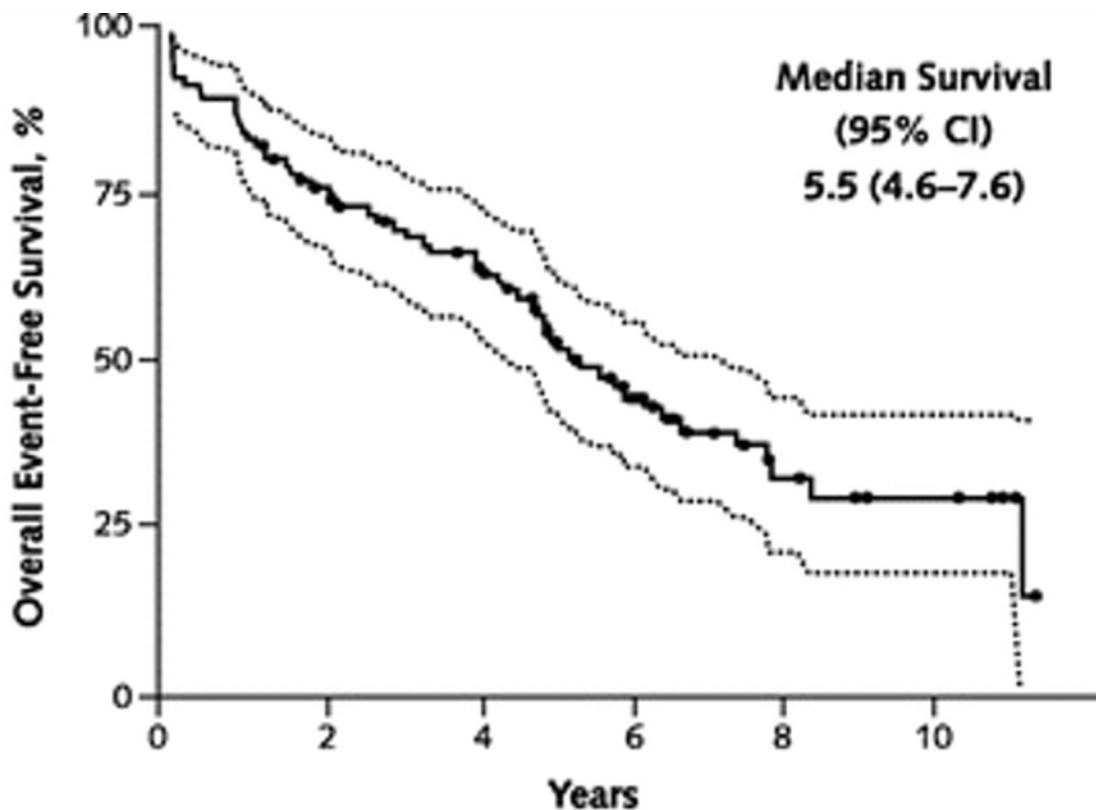
Time from study to systematic review



Time from protocol to SR publication



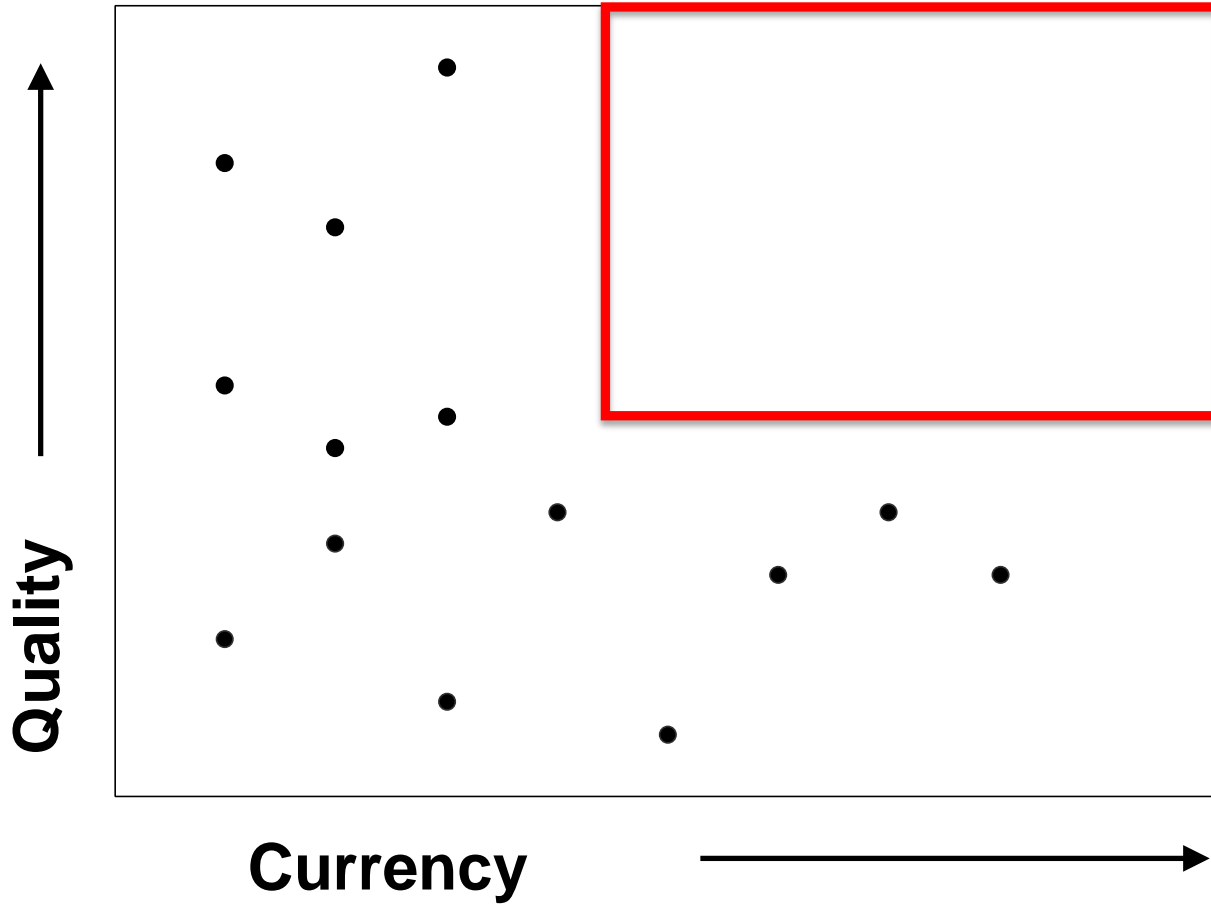
Survival of systematic review accuracy



Systematic reviews
at risk, *n*

100 73 59 34 14 6

Break the trade-off



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

Julian H. Elliott^{1,2*}, Tari Turner^{2,3}, Ornella Clavisi⁴, James Thomas⁵, Julian P. T. Higgins^{6,7}, Chris Mavergames⁸, Russell L. Gruen^{4,9}

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The Bridge from Evidence to Practice

Health research promises societal benefit by making better health possible. However, there has always been a gap between research findings (what is known) and health care practice (what is done), described as the “evidence-practice” or “know-do” gap [1]. The reasons for this gap are complex [2], but it is clear that synthesising the complex, incomplete, and at times conflicting findings of biomedical research into forms that can readily inform health decision making is an essential component of the bridge from “knowing” to “doing.”

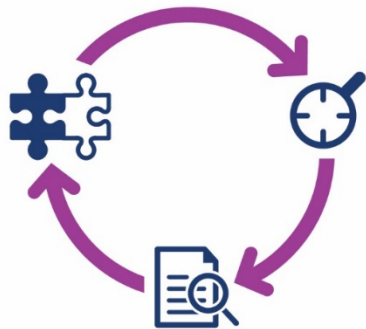
Systematic reviews (SRs) and meta-analyses have provided incalculable benefit for human health by contributing to the

Summary

- The current difficulties in keeping systematic reviews up to date leads to considerable inaccuracy, hampering the translation of knowledge into action.
- Incremental advances in conventional review updating are unlikely to lead to substantial improvements in review currency. A new approach is needed.
- We propose living systematic review as a contribution to evidence synthesis that combines currency with rigour to enhance the accuracy and utility of health evidence.
- Living systematic reviews are high quality, up-to-date online summaries of health research, updated as new research becomes available, and enabled by improved production efficiency and adherence to the norms of scholarly communication.
- Together with innovations in primary research reporting and the creation and use of evidence in health systems, living systematic review contributes to an emerging evidence ecosystem.

What is a Living Systematic Review?

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



Key elements:

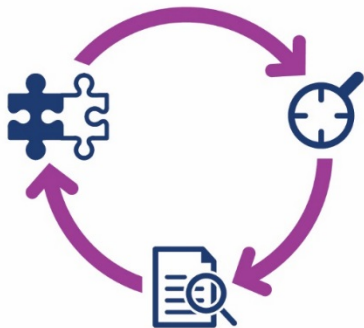
- An approach to review updating, not a formal review methodology
- Can be applied to any type of review
- Uses standard systematic review methods
- Explicit and a priori commitment to a predetermined frequency of search and review updating

What is a Living Guideline?

Optimization of the guideline development process to allow updating of individual recommendations as soon as new relevant evidence becomes available .

Key elements:

- Aim is to provide timely and trustworthy advice for decision makers
- Builds on an existing, high quality guideline
- Unit of update becomes the recommendation, and not the guideline
- Uses standard guideline development methods



When?

- 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





Journal of Clinical Epidemiology Series

- Living Systematic Reviews: 1. Introduction - the why, what, when and how
- Living Systematic Reviews: 2. Combining human and machine effort
- Living Systematic Reviews: 3. Statistical methods for updating meta-analyses
- Living Systematic Reviews: 4. Living guideline recommendations





The LSR Network

- 160+ members
- Researchers, guideline developers, professional medical associations, HTA developers
- Cochrane and non-Cochrane
- Considerable expertise and interest within the Network
- Resources, meetings, webinars, pilots
- cochrane.org/lsr





Project Transform

Living Systematic Review Network interest group leads

Elie Akl, John Hilton, Harriet Macle hose, Steve McDonald, Joerg Meerpohl, Georgia Salanti, Ian Shemilt, Mark Simmonds, Anneliese Synnot, James Thomas, Tari Turner

Living Systematic Review Network members

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Project Transform

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Cochrane Crowd: Anna Noel-Storr, Chris Mavergames

Task Exchange: Chris Mavergames, Julian Elliott, Tari Turner

Production Models: David Tovey, Julian Elliott, Tari Turner

Project Transform is funded through the Cochrane Game Changer initiative (2015-2017) and a National Health and Medical Research Council of Australia Partnership Project grant (2016-2018 /APP1114605).

