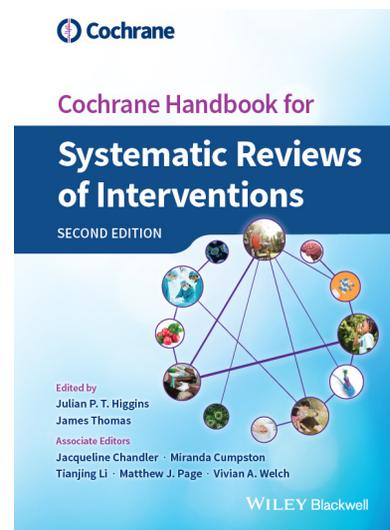


## Cochrane Handbook for Systematic Reviews of Interventions What's New in Version 6

The *Cochrane Handbook for Systematic Reviews of Interventions* has been extensively revised for Version 6 (published in book form by John Wiley & Sons Ltd as the 2nd edition). Aimed primarily at Cochrane Review authors and editors, but of interest to anyone conducting systematic reviews, it describes the methods that are used to plan, conduct, interpret and report systematic reviews to inform decision-making around the use of health and healthcare interventions.

The *Handbook* is divided into four parts (see contents [below]). The first part (available only online) addresses issues specific to working with Cochrane. The second part describes the standard methods applicable to systematic reviews of randomized trials. The third and fourth parts address several specific perspectives and methodological issues that are relevant in some, though not all, reviews.

Here we highlight key updates to *Handbook* guidance since Version 5.1 (2011).



### Planning the review

Cochrane Reviews should answer important questions that are relevant to decision-making, and good planning at the outset can avoid a host of problems later on, ensuring the timely completion of the review. *Chapters 2 and 3* assist authors in this regard, providing guidance on how to construct good review questions, and in-depth guidance on how to group study results for synthesis. We introduce the notions of the **review PICO** to specify eligibility of studies; the **PICO for each synthesis** to define the question addressed by each specific synthesis; and the **PICO of the included studies** to specify what was actually investigated in the individual studies identified. We return to the practicalities of implementing the plans once the studies have been identified in all-new *Chapter 9*, covering **preparing for synthesis**.

### Risk of bias

Substantial developments have been made in the area of **risk of bias assessment**, and these are overviewed in *Chapter 7*. The updated **RoB 2 tool** for assessing risk of bias in randomized trials is described in *Chapter 8*. The recommended tool for assessing risk of bias in non-randomized studies of interventions is now the **ROBINS-I tool**, described in *Chapter 25*. The framework for thinking about publication bias in Cochrane reviews has been refined, and is presented in *Chapter 13* about **bias due to missing results**.

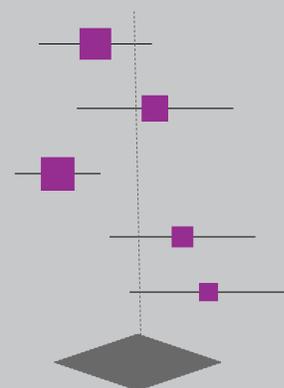
Risk of bias					
R	D	Mi	Me	S	O
+	+	+	+	+	+
+	+	+	?	+	?
+	+	+	?	+	?
-	?	?	?	?	-
-	+	+	+	?	-
+	+	-	+	-	-
?	+	-	?	?	-
?	+	-	?	?	-

### Identifying the evidence

Guidance on searching has been brought up to date in *Chapter 4* and supported by an **extended technical supplement** with detailed guidance on resources to search and how to search them. We introduce material on the role of **text mining and machine learning** in the study selection process, and on making use of **clinical study reports** where these are available. New *Chapter 22* discusses prospective approaches to identifying evidence, including **evidence surveillance, living systematic reviews, and prospectively planned meta-analyses**.

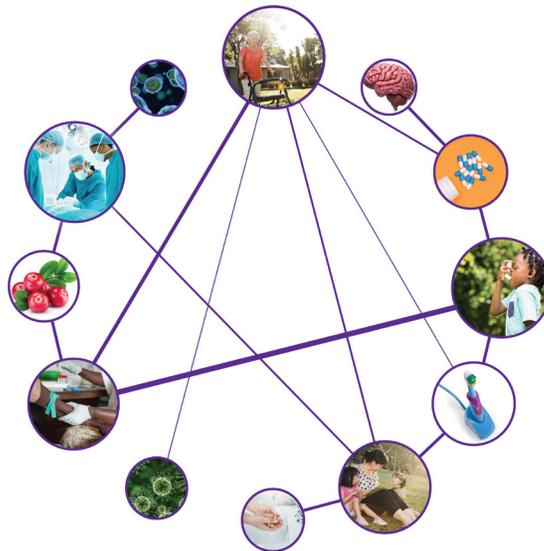
### Statistics and meta-analysis

Decision makers often need to decide among multiple intervention options. A major new core *Chapter 11* addresses **network meta-analysis** to support such decisions. Cochrane is actively encouraging the appropriate use of this methodology, both as a standard method of synthesis and to make our reviews more useful to decision makers. Guidance for **meta-analysis** in *Chapter 10* includes new material on improved methods for random-effects meta-analysis and meta-analysing continuous outcomes (e.g. using the ratio of means), and is supplemented by all-new *Chapter 12* on **alternatives to traditional meta-analysis** for synthesis of results across studies.



## Complexity in reviews

All new *Chapter 17* addresses issues around **intervention complexity**. We prefer this term to ‘complex interventions’ to emphasize that some consideration of complexity may be needed even for apparently ‘simple’ interventions. We address complexity in three dimensions, covering interventions with **multiple components**, interventions in which there are **interactions between the intervention and its context**, and interventions that are introduced into **complex systems**. These issues, which often result in high heterogeneity, are picked up throughout the new *Handbook*. In particular, *Chapters 2 and 3* consider **logic models** and how to consider differences between ‘classes’ of intervention and population; *Chapters 9 and 12* assist in situations where meta-analysis may be inadvisable; and *Chapter 16* advises authors on how to address **equity** through consideration of the distribution of the effects of interventions within populations.



# Handbook Contents list

## Part 1: About Cochrane Reviews

- I. Introduction
- II. Planning a Cochrane Review
- III. Reporting a review
- IV. Updating a review
- V. Overviews of Reviews

## Part 2: Core methods

1. Starting a review
2. Determining the scope of the review and the questions it will address
3. Defining the criteria for including studies and how they will be grouped for synthesis
4. Searching for and selecting studies
5. Collecting data
6. Choosing effect measures and computing estimates of effect
7. Considering bias and conflicts of interest among the included studies
8. Assessing risk of bias in a randomized trial
9. Summarizing studies and preparing for the synthesis
10. Analysing data and undertaking meta-analyses
11. Undertaking network meta-analyses
12. Synthesizing and presenting findings using other methods
13. Assessing risk of bias due to missing results in a synthesis
14. Completing ‘Summary of findings’ tables and grading the certainty of the evidence
15. Interpreting results and drawing conclusions

## Part 3: Specific perspectives in reviews

16. Equity and specific populations
17. Intervention complexity
18. Patient reported outcomes
19. Adverse effects
20. Economics evidence
21. Qualitative evidence

## Part 4: Other topics

22. Prospective approaches to accumulating evidence
23. Including variants on randomized trials
24. Including non-randomized studies
25. Assessing risk of bias in a non-randomized study
26. Individual participant data

## Handbook Editorial team

### Senior Scientific Editors:

Julian Higgins and James Thomas

### Associate Scientific Editors:

Jacqueline Chandler, Miranda Cumpston, Tianjing Li, Matthew Page and Vivian Welch

Contact: [methods@Cochrane.org](mailto:methods@Cochrane.org)