

# Introduction to Evidence Reviews

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21st October 2025

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# Objectives

- What are Evidence Reviews
- Types of Evidence Review – when to use, key aspects
- Fundamentals of Evidence Reviews – key steps, key resources
- Sources of Evidence Reviews
- Questions



# What are Evidence Reviews

## Definition

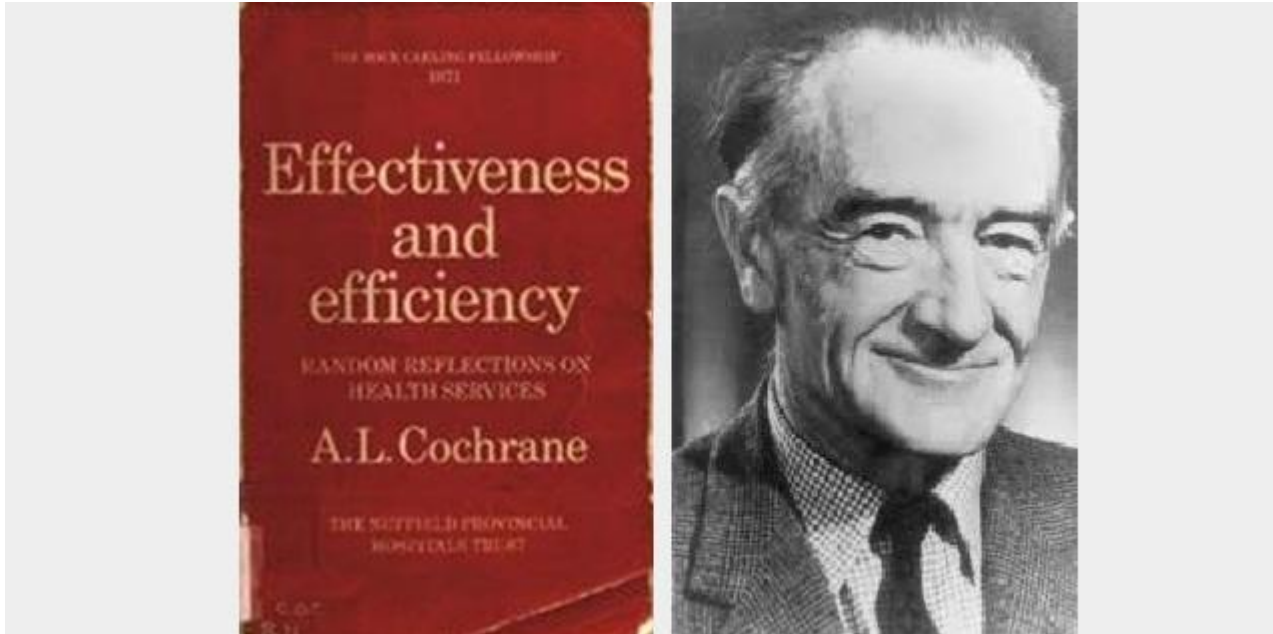
An analysis of existing research evidence on a specific topic using robust and transparent methods to identify, select, evaluate and summarize the relevant evidence.

## Why Evidence Reviews Matter in Healthcare

Evidence reviews are valuable as they aim to look at a body of evidence to inform healthcare decision making rather than relying on single studies or solely on clinical judgement.



# Archie Cochrane (1909-1988): doctor and epidemiologist



Cochrane Evidence Essentials - Module 1: Evidence-based medicine. <https://www.cochrane.org/learn/courses-and-resources/evidence-essentials> [Accessed 2nd October 2025].

**‘It is surely a great criticism of our profession that we have not organized a critical summary, by specialty or subspecialty, adapted periodically, of all relevant randomized controlled trials.’**

Cochrane, A. L. (1979) 1931-1971: a critical review, with particular reference to the medical profession. In: Teeling-Smith, G.W., N. (ed.) Medicines for the year 2000. London, Office of Health Economics, pp. 1-11.

**Cochrane Collaboration (1993) > Cochrane**  
Systematic reviews of randomized controlled trials of health interventions

# Evidence Review Type Examples and When to Use

## Scoping review

- uses systematic methods to search, select and synthesize research evidence
- identify the nature and extent of the research on a topic, determine if one or more systematic reviews are required or to identify if gaps in the evidence

## Systematic review

- uses systematic methods to search for, select, appraise and synthesize research evidence
- inform healthcare decision making

## Rapid review

- follows the steps of the systematic review process but they've been simplified to produce a synthesis of the evidence more quickly
- inform a very focused aspect of healthcare decision making in a timely manner

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Grant, M. J. & Booth, A. (2009) A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal*. 26 (2), 91-108. doi: 10.1111/j.1471-1842.2009.00848.x.

Knowledge Translation Program. Knowledge Synthesis Methods. <https://whatreviewisrightforyou.knowledgetranslation.net/site/methods> [Accessed 2nd October 2025].

# Evidence Review Types: Key Methodological Aspects

	Scoping Review	Systematic Review	Rapid Review
Question	Broad – to assess extent and nature of evidence base	Focused	Highly refined
Search	Completeness of searching determined by time/scope constraints.	Aims for exhaustive, comprehensive searching	Completeness of searching determined by time constraints
Appraisal	No	Yes	Yes but time limited
Synthesis	Typically tabular with some narrative commentary	Typically narrative with tabular accompaniment, may include meta-analysis	Typically narrative and tabular
Analysis	Quantity and quality of literature, perhaps by key features. Aims to specify if full systematic review is needed	What is known/unknown Uncertainty around findings Recommendations for practice and future research	Quantities of literature and overall quality/direction of effect of literature

Grant, M. J., & Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information & Libraries Journal*, 26, 91–108.

# Fundamentals of Evidence Reviews

## Protocol:

- records what you set out to do
- understand your topic
- can register your protocol: [PROSPERO](#), [Open Science Framework](#)

## Evidence Review Question:

- well-formulated
- enables an efficient and effective search for the research evidence
- enables definition of inclusion and exclusion criteria for screening

## Search Methods:

- information retrieval critical component of an evidence review
- minimises the potential to miss key evidence
- minimises bias in the whole evidence review
- involve an information specialist or librarian

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# Fundamentals of Evidence Reviews

## Training

Internal – e.g. PHW Evidence Service offers systematic searching and critical appraisal sessions

Academic – e.g. [Specialist Unit for Review Evidence, Cardiff University](#)

Evidence Review Organisations – e.g. [Cochrane](#), [Joanna Briggs Institute](#)

## Methodology

[Cochrane Handbook for Systematic Reviews of Interventions](#)

[Cochrane Handbook for Systematic Reviews of Diagnostic Test Accuracy](#)

[Cochrane Rapid Reviews Methods Guidance](#)

[JBI Manual for Evidence Synthesis](#)

## Reporting Standards

[EQUATOR Network | Enhancing the QUALity and Transparency Of Health Research](#)

[PRISMA statement](#) - Preferred Reporting Items for Systematic reviews and Meta-Analyses

[PRISMA extension for scoping reviews \(PRISMA-ScR\)](#)



# Fundamentals of Evidence Reviews

## Critical Appraisal (Quality Assessment or Risk of Bias) of Systematic Reviews

Don't rely on a systematic review calling itself a systematic review

- [ROBIS: Tools to assess risk of bias in systematic reviews](#)
- [AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or nonrandomised studies of healthcare interventions, or both](#)
- [Critical appraisal skills programme \(CASP\) Systematic Review Checklist](#)
- [JBI Checklist for Systematic Reviews](#)



# Sources of Evidence Review

[NHS Wales e-Library for Health: Resources](#)

[NHS Wales e-Library for Health: Databases](#) e.g. Medline, Embase

**Focused collections:**

[Campbell Collaboration](#)

[Cochrane Database of Systematic Reviews](#)

[Epistemonikos](#)

[Trip Medical Database](#)



# Sources of Evidence Review

## Grey literature sources of Evidence Reviews

[Evidence for Policy & Practice Information Centre - Systematic Reviews](#)

[Foundations, the What Works Centre for Children & Families – Publications](#)

[Health Evidence™](#)

## Evidence Review Protocols

[Open Science Framework](#)

[PROSPERO](#)



# Further Help

[Library Services](#)

[NHS Wales e-Library for Health: Contact Us](#)

