

Unit Three: Resources Required

Learning Objective

- *To be familiar with the resources required to conduct a systematic review*

Conducting a systematic review can be a time-consuming task. Ideally, a minimum of six months is required to complete a review (full-time). However, there will be times which are less busy, for example, when awaiting the retrieval of full-text articles. The following list outlines the requirements to complete a systematic review:

- Topic of relevance or interest
- Team of co-authors (to reduce bias)
- Training and support
- Access to/understanding of the likely users of the review
- Funding
- Time
- Access to electronic searching databases and the internet (for unpublished literature)
- Statistical software (if appropriate)
- Bibliographic software (eg. Endnote)
- Word processing software

The Cochrane Collaboration software, RevMan (abbreviation for Review Manager), can be used for both the text of the review and meta-analysis, and can be downloaded for free from <http://www.ccsims.net/RevMan>.

Time

Although no research has been completed on the overall time it takes to complete a health promotion or public health systematic review, we are given some insight from an analysis of 37 medically-related meta-analyses¹. The analysis by Allen and Olkin¹ found that the average hours for a review were 1139 (~6 months), but ranged from 216 to 2518 hours.

The component mean times were:

588 hours	Protocol development, searches, retrieval, abstract management, paper screening and blinding, data extraction and quality scoring, data entry
144 hours	Statistical analysis
206 hours	Report and manuscript writing
201 hours	Other (administrative)

There was an observed association between the number of initial citations (before exclusion criteria are applied) and the total time it takes to complete a meta-analysis.

Note: The time it takes to complete a health promotion and public health review may be longer due to less standardised definitions (eg. concepts, language, terminology) for public health interventions compared to clinical interventions resulting in a larger number of citations to apply the inclusion and exclusion criteria.

- Searching

The EPPI-Centre² documented the time it took an experienced health promotion researcher in developing and implementing a Medline search strategy to identify sexual health promotion primary studies.

40 hours	Developing and testing a sensitive search strategy for Medline
8 hours	Implementing the search for the most recent Medline period available at the time (January 1996 to September 1997) and downloading citations
7 hours	Scanning through the 1048 retrieved records

If such a search strategy was to be implemented over the 30 years covered by Medline, the number of retrieved records would be around 10,000. Consequently, about 70 hours would be needed to identify the relevant citations for the review. Overall, this Medline search strategy would take approximately 120 hours.

A preliminary literature search and contact with relevant experts in the area might help assist in calculating the approximate time required to complete the review.

REFERENCES

1. Allen IE, Olkin I. Estimating Time to Conduct a Meta-analysis From Number of Citations Retrieved. JAMA 1999;282(7):634-5.
2. Evidence for Policy and Practice Information and Co-ordinating Centre. Research Report. Effectiveness Reviews in Health Promotion. 1999.

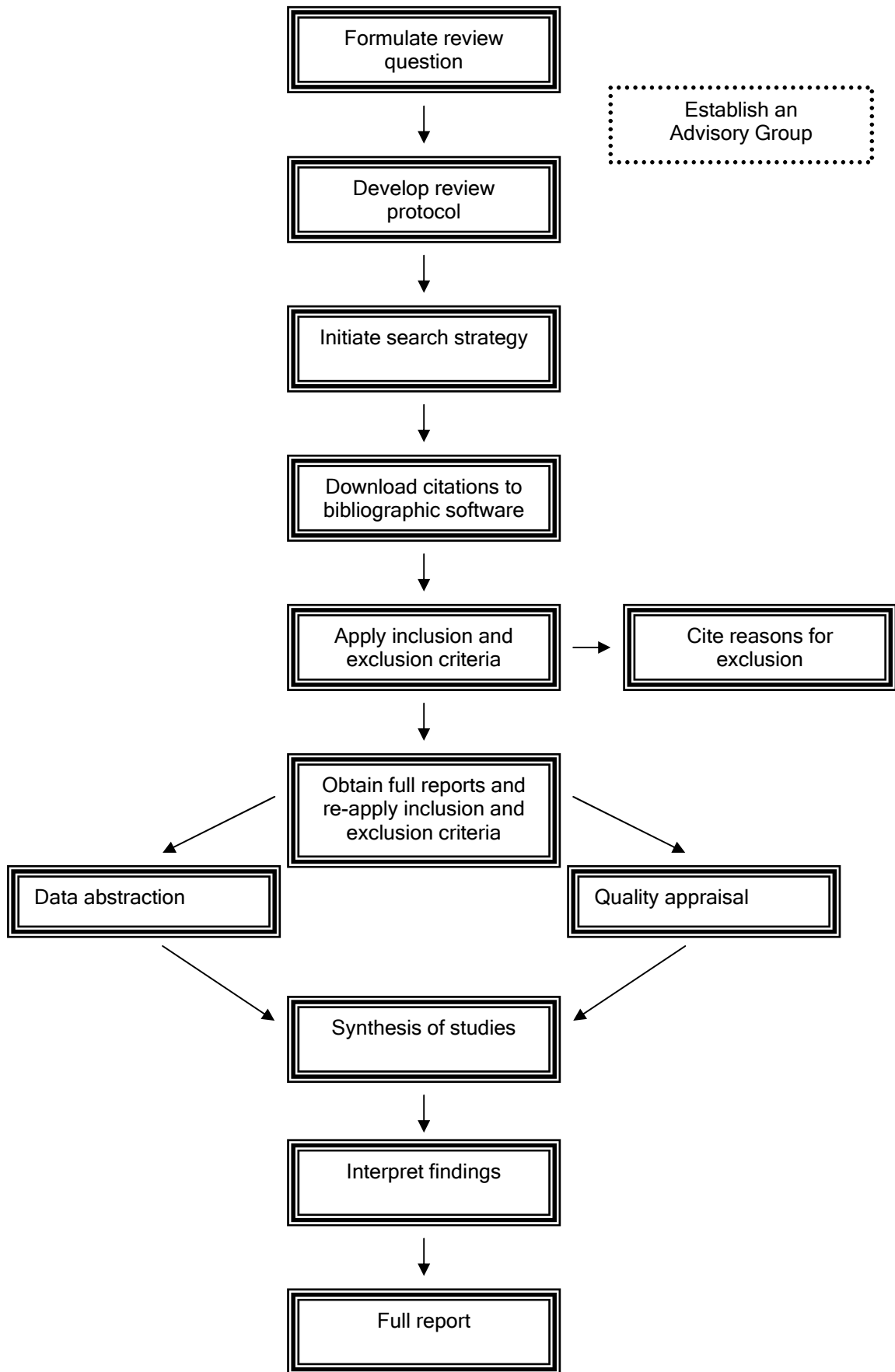


Figure One. Flow chart of a systematic review

Resources required



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Conduct of systematic reviews

- Topic of relevance or interest
- Team of co-authors
- Training and support
- Access to/understanding of stakeholders or likely users
- Funding and time (at least 6 months)
- Access to databases of published and unpublished literature
- Statistical software, if appropriate
- Bibliographic software

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Review manuals

- Cochrane Collaboration Reviewers' Handbook
- Cochrane Collaboration Open Learning Materials
- NHS Centre for Reviews and Dissemination Guidance for those Carrying Out or Commissioning Reviews
- The Methods of the Community Guide
- A Schema for Evaluating Evidence on Public Health Interventions
- EPPI-Centre Reviewers' Manual

-EBPH

Guidelines for HP/PH reviews

Cochrane Health Promotion and Public Health Field website

<http://www.vichealth.vic.gov.au/cochrane/activities/guidelines.htm>