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- Access to electronic searching databases and the internet (for unpublished literature)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.cctims.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-analyses. The analysis by Allen and Olkin 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-Centre 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.

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Description</th>
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<tbody>
<tr>
<td>40 hours</td>
<td>Developing and testing a sensitive search strategy for Medline</td>
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<tr>
<td>8 hours</td>
<td>Implementing the search for the most recent Medline period available at the time (January 1996 to September 1997) and downloading citations</td>
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<tr>
<td>7 hours</td>
<td>Scanning through the 1048 retrieved records</td>
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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**


Figure One. Flow chart of a systematic review

1. Formulate review question
2. Develop review protocol
3. Initiate search strategy
4. Download citations to bibliographic software
5. Apply inclusion and exclusion criteria
6. Obtain full reports and re-apply inclusion and exclusion criteria
   - Data abstraction
   - Quality appraisal
7. Synthesis of studies
8. Interpret findings
9. Full report
10. Establish an Advisory Group
**Resources required**

- 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

**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

**Guidelines for HP/PH reviews**

Cochrane Health Promotion and Public Health Field website