Cochrane Health Promotion and Public Health Field

Systematic Reviews of Health Promotion and Public Health Interventions

Two-day training workshop

A Public Health Education and Research Project funded by the Australian Government Department of Health and Ageing
Author

Nicki Jackson
Cochrane Health Promotion and Public Health Field
Victorian Health Promotion Foundation

Acknowledgements

The production of this handbook was funded by a grant from the Australian Government Public Health Education and Research Program (PHERP).

Thanks to those listed below for providing comments on drafts of the material included in the Handbook:

Professor Elizabeth Waters
Director, Cochrane Health Promotion and Public Health Field, Chair in Public Health, Deakin University

Dr Celia McMichael
School of Public Health, La Trobe University

Dr Lucie Rychetnik
Sydney Health Projects Group, The University of Sydney

John Bennett
Project coordinator, School of Public Health, The University of Sydney

The author has also utilised the work conducted by the Guidelines for Systematic Reviews in Health Promotion and Public Health. This taskforce includes:

Anderson L. (Centers for Disease Control and Prevention, USA); Bailie R. (Menzies School of Health Research and Flinders University NT Clinical School, Australia); Brunton G. (Evidence for Policy and Practice Information and Co-ordinating (EPPI) Centre, UK); Hawe P. (University of Calgary, Canada); Jackson N. (Cochrane Health Promotion and Public Health Field, Australia); Kristjansson E. (University of Ottawa, Canada); Naccarella L. (University of Melbourne, Australia); Norris S. (Agency for Healthcare Research and Quality, USA); Oliver S. (EPPI-Centre, UK); Petticrew M. (MRC Social and Public Health Sciences Unit, UK); Pienaar E. (South African Cochrane Centre); Popay J. (Lancaster University, UK); Roberts H. (City University, UK); Rogers W. (Flinders University, Australia); Shepherd J. (University of Southampton, UK); Sowden A. (Centre for Reviews and Dissemination, University of York, UK); Thomas H. (McMaster University and the Effective Public Health Practice Project, Canada); Waters E. (Cochrane Health Promotion and Public Health Field and Deakin University, Australia).

Copyright

The copyright for the course material lies with Deakin University and the Australian Department of Health and Aging. The course materials may be reproduced and used to conduct non-profit systematic review courses for the Australian public health workforce. The materials should not be used for any commercial or profit-making activity unless specific permission is granted by the copyright owners.
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Overview of workshop</td>
<td>3</td>
</tr>
<tr>
<td>Unit One: Background to Systematic Reviews</td>
<td>5</td>
</tr>
<tr>
<td>Unit Two: International Systematic Review Initiatives</td>
<td>9</td>
</tr>
<tr>
<td>Unit Three: Resources Required</td>
<td>11</td>
</tr>
<tr>
<td>Unit Four: Developing a Protocol</td>
<td>15</td>
</tr>
<tr>
<td>Unit Five: Asking an Answerable Question</td>
<td>19</td>
</tr>
<tr>
<td>Unit Six: Finding The Evidence</td>
<td>27</td>
</tr>
<tr>
<td>Unit Seven: Data Abstraction</td>
<td>45</td>
</tr>
<tr>
<td>Unit Eight: Principles of Critical Appraisal</td>
<td>47</td>
</tr>
<tr>
<td>Unit Nine: Synthesising the Evidence</td>
<td>81</td>
</tr>
<tr>
<td>Unit Ten: Interpretation of Results</td>
<td>85</td>
</tr>
<tr>
<td>Unit Eleven: Writing the Systematic Review</td>
<td>93</td>
</tr>
</tbody>
</table>
Introduction

Welcome to the two-day workshop entitled “Conducting systematic reviews of public health and health promotion interventions”.

This training handbook will take you through the process of conducting a systematic review of a health promotion or public health intervention. The purpose of this handbook is to describe the steps of the systematic review process and provide some working examples to practice prior to commencing a review. The handbook, however, is not intended to be used as a single resource for conducting reviews. Reviewers are recommended to source additional information from other review handbooks/guidance manuals (highlighted below), particularly for issues relating to data analysis.

Note: This handbook is useful for both Cochrane reviewers and reviewers who are completing a systematic review for their workplace, studies, etc. If you wish to complete a Cochrane review, please visit www.cochrane.org (About us – Contact: Groups and Centres) to find the appropriate Collaborative Review Group to register your interest or contact the Cochrane Health Promotion and Public Health Field for further information cochrane@vichealth.vic.gov.au.

Overall learning outcomes

Working through this handbook will enable you to:

- Be familiar with some of the key challenges of conducting systematic reviews of health promotion and public health interventions
- Formulate an answerable question about the effectiveness of interventions in health promotion and public health
- Identify primary studies, including developing evidence-based strategies for searching electronic databases
- Evaluate the quality of both an individual health promotion or public health study and a systematic review
- Synthesise the body of evidence from primary studies
- Formulate conclusions and recommendations from the body of evidence

Additional reading:

Textbooks:


**Manuals / Handbooks:**


Overview of workshop

DAY ONE:

- Background to systematic reviews
- International systematic review initiatives
- Resources required to complete a systematic review
- Setting the scope of your review
- Asking an answerable question
- Data abstraction
- Principles of critical appraisal

DAY TWO:

- Finding the evidence
- Synthesising the evidence
- Interpretation of results
- Writing the systematic review
<table>
<thead>
<tr>
<th>Time</th>
<th>Day One</th>
<th>Exercise</th>
<th>Day Two</th>
<th>Exercise</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00am</td>
<td>Introductions</td>
<td>Unit Six: Introduction to searching (theory)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overview of workshop</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:30am</td>
<td>Unit 1: Background to systematic reviews</td>
<td>Comparing PH/HP interventions</td>
<td>9:45am</td>
<td>Finding the evidence exercise</td>
</tr>
<tr>
<td></td>
<td>Unit 2: International systematic review initiatives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:30am</td>
<td>Morning tea</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:45am</td>
<td>Unit 3: Resources required</td>
<td>Unit 6: Finding the evidence (practice)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unit 4: Setting the scope</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:30am</td>
<td>Unit 5: Asking an answerable question</td>
<td>Asking an answerable question</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:15pm</td>
<td>Lunch</td>
<td>Lunch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:15pm</td>
<td>Unit 7: Data abstraction</td>
<td>Appraisal exercise (quantitative - CBA and RCT)</td>
<td>Unit 9: Synthesis of evidence</td>
<td>Quiz Discuss narrative reviews</td>
</tr>
<tr>
<td></td>
<td>Unit 8: Principles of critical appraisal (quantitative)</td>
<td></td>
<td></td>
<td>Unit 10: Interpretation of results</td>
</tr>
<tr>
<td>3:00pm</td>
<td>Afternoon tea</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:15pm</td>
<td>Unit 8: Principles of critical appraisal (qualitative)</td>
<td>Appraisal exercise (qualitative)</td>
<td>Unit 11: Writing a systematic review</td>
<td>Appraisal exercise</td>
</tr>
<tr>
<td>4:25-4:30</td>
<td>Review Day One</td>
<td></td>
<td>Review Day Two and two-day workshop</td>
<td></td>
</tr>
</tbody>
</table>
Conducting systematic reviews of public health and health promotion interventions

Overview
Background to systematic reviews
International systematic review initiatives
Resources required
Setting the scope of your review
Asking an answerable question
Searching for studies
Data abstraction
Principles of critical appraisal
Synthesis of evidence
Interpretation of results
Writing the systematic review

Objectives
This workshop will enable you to:
1. Be familiar with some of the key challenges of conducting systematic reviews of health promotion and public health interventions
2. Formulate an answerable question about the effectiveness of interventions
3. Identify primary studies, including developing strategies for searching electronic databases

Objectives cont.
4. Evaluate the quality of an individual health promotion or public health study
5. Synthesise the evidence from primary studies
6. Formulate conclusions and recommendations from the body of evidence
7. Evaluate the quality of a systematic review

Acknowledgement
The Public Health Education and Research Program (PERP), Australia
"Promoting and facilitating evidence-based policy and practice in Public Health and Health Promotion"

- Sydney Health Projects Group, School of Public Health, University of Sydney
- School of Public Health, La Trobe University
- Cochrane Health Promotion and Public Health Field