A Proposed Schema for Evaluating Evidence on Public Health Interventions

Version 3.1

National Public Health Partnership

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Version 3.1: Please note this edition of the schema is work in progress. Further development of the schema is occurring through a series of case studies and consultations. Revised versions will be published in due course.

Further copies

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User's notes for Version 3.1 of the schema

INTRODUCTION

What this schema does – and what it does not do

The process of reviewing published and other literature on public health interventions – and using the findings of the review – involves five steps:

- Identify the purpose of the literature review and formulate the review question(s) to be addressed
- Find and collate studies to be reviewed (i.e. papers and evaluation reports)
- Appraise each paper or evaluation report
- Formulate a statement on the body of evidence
- Publish findings and/or apply review findings to inform decisions about public health policy or practice.

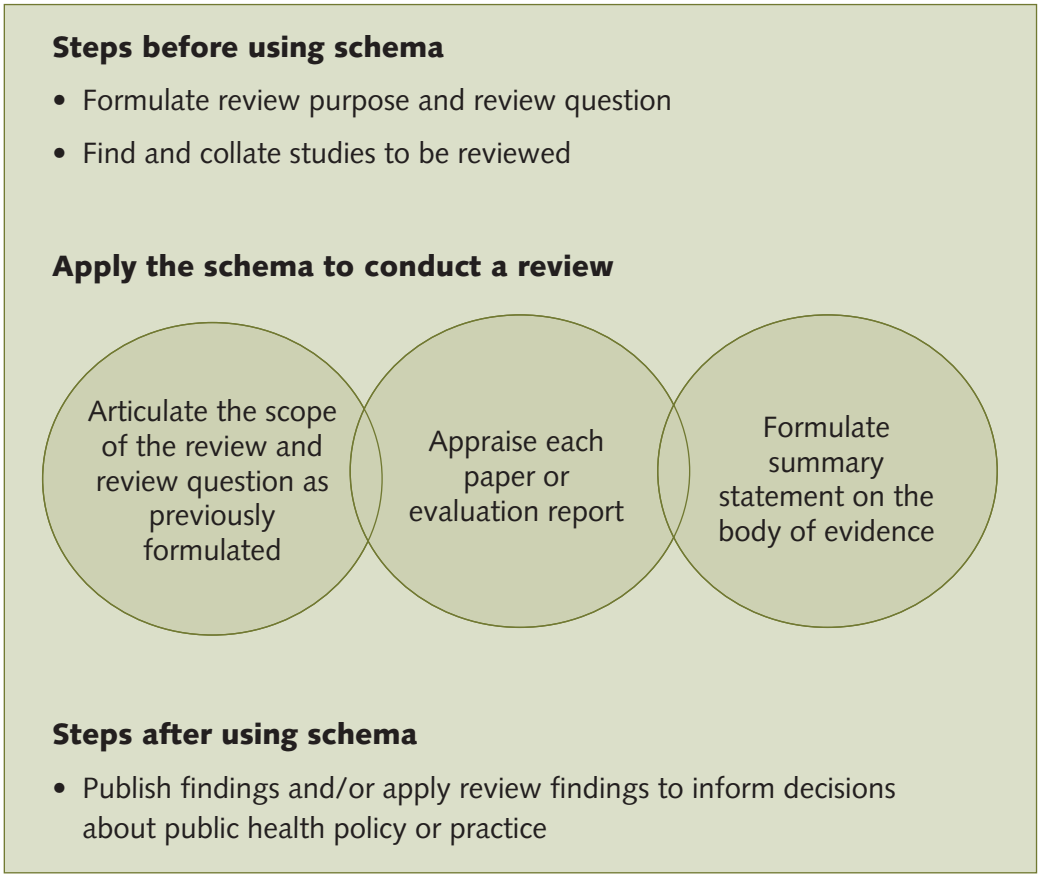
This schema deals with the third and fourth steps. It is a guide to appraising a collated body of research evidence and forming a statement on that evidence within the context of an explicitly defined review setting. Users of the schema are asked to **articulate** the decisions that were made earlier (in the first step) about the scope of the review. The schema then provides a guide to the **appraisal of individual papers** and **formation of a summary statement** about those papers.

The schema is ***not*** a guide to the processes involved in formulating an appropriate review question or determining how the review should be used after it is completed. It is essential however that these steps are done thoroughly and are clearly articulated by the review group. You may find it useful to refer to publications from the Australian NHMRC, the UK Centre for Reviews and Dissemination, and the Cochrane Collaboration on how to conduct these steps of a systematic review.[1,2,3*]

A review of the literature may be conducted for various reasons. The intention is that evidence reviews prepared using the schema will contribute to evidence-based decisions about public health interventions. We emphasise that the schema is ***not* a guide on how to make policy or practice decisions**. We distinguish between the technical process of reviewing evidence (guided by the schema) and the social and political process of determining policy or resource allocation decisions (beyond the scope of the schema). If you are involved in making decisions about public health policy and practice, you may wish to refer to the National Public Health Partnership documents on planning in public health practice, or on deciding about an intervention portfolio.[4,5] What the schema does and does not do are illustrated in Figure 1 on the following page.

* Superscript numerals refer to the References on page 43.

Figure 1: The place of the schema in steps to evaluate literature on an intervention



CONTENTS OF THE SCHEMA

The schema comprises a series of critical appraisal questions to be applied to evaluative research papers and reports on an intervention. In constructing the schema we attempted to arrange and group the questions in a logical sequence. We hope that this will help users to appraise the literature systematically and comprehensively, and to formulate a conclusion on the available evidence about the intervention(s).

The questions in Version 3.1 of the schema are arranged in five sections (Sections A to E). In Section A users of the schema identify the purpose of their review and their review needs. In Sections B, C and D, users appraise and prepare a summary of each individual paper or evaluation report. Section E leads to the formulation of an overall statement on the total body of available evidence. Your conclusions in Section E should be linked to the purpose of the review and answer the review questions identified in Section A.

THE SCHEMA IN SUMMARY

Section A: Defining the purpose and scope of your review

Section A is done only once – at the start of your review. On completing this section, you will have a clear statement on why you are doing the review and what the review is about. Refer to this statement on the purpose and scope of your review as you appraise individual papers in Sections B and C, and when you are forming your conclusions about the evidence in Section E.

A clear statement about the purpose and scope of your review will also assist subsequent users of your review to interpret your conclusions. The key points to be addressed in Section A are to identify the question you want to answer in the review and describe how your findings are to be used.

Section B: Evaluating each paper in the review

Section B is done separately for each paper or report. In Section B you will examine each paper closely to understand and assess the intervention being evaluated; the context in which the intervention took place; the background to the evaluation of the intervention; and how the evaluation was carried out. By completing this section for each paper, you will be able to decide whether and how to use the evaluation findings from that paper in your review (i.e. whether to apply Sections C and D to the paper or whether to reject the paper). Section B has five sub-sections – B1 to B5.

B1 PUBLICATION DETAILS

Sub-section B1 asks you to record the publication details of each paper that you examine.

B2 SPECIFYING THE INTERVENTION

Sub-section B2 guides you to describe precisely the intervention(s) that have been evaluated in each paper, as well as the origin and development of the intervention(s). Some research reports only include a summary description of the intervention. If the research paper does not provide adequate information about the intervention, you may need to consult any additional documentation that may be available.

On completing sub-section B2, you will have either a complete and detailed description of the intervention, or a good idea of what information is lacking on the intervention. This will help you assess the relevance of the research paper to your review.

B3 IDENTIFYING THE INTERVENTION CONTEXT

Sub-section B3 focuses on the context (or setting) in which the intervention took place. It is important to determine whether contextual factors are critical or integral to the intervention. It is also important to examine whether adequate details were provided about the context to inform subsequent decisions about the applicability of the intervention to other settings.

The findings from B3 will help you to assess the transferability of the intervention(s), and to determine the relevance of the intervention to your review when you apply Section D to the paper. If the research paper does not provide enough information on the intervention context, sub-section B3 will help you to identify that gap in the evidence. Lack of information about the intervention context may influence your decision on how to use the paper's findings.

B4 THE EVALUATION CONTEXT – BACKGROUND, PURPOSE AND QUESTIONS ASKED

Sub-section B4 guides you to understand the background of the evaluation that is reported in the paper, and to identify the evaluation questions. In some papers the intervention and its evaluation are part of the same project. In other papers you may find that an evaluation was planned and conducted as a separate project rather than as part of the implementation of the intervention. Key issues are how the timing of the evaluation relates to the development and implementation of the intervention, and who conducted the evaluation and why.

B4 helps you to assess the context of the evaluation and to consider whether that evaluation was appropriate and adequate for its purpose. This will assist in interpreting the reported evaluation results in Section D. If the research paper provides insufficient information on the evaluation context, additional information could be sought, including contact with the author.

B5 THE METHODS USED TO EVALUATE THE INTERVENTION

Sub-section B5 requires you to appraise the quality and rigour of the method/s used to evaluate the intervention. You will be asked to apply one or more critical appraisal checklist/s (included in the Appendices), depending on the research methods used in the study. The key question addressed is whether the design and conduct of the evaluation methods were adequate to produce credible evaluation results.

This assessment of the evaluation methods will help you decide whether to include the evaluation results from that paper in your review findings (i.e. whether to continue with your appraisal to apply Sections C and D).

Section C: Describing the results from papers selected

Like Section B, Section C is done to each paper or report. In Section C you will describe the results that were reported in the paper. This includes both beneficial and adverse effects of the intervention, and the sustainability of those effects. Section C also deals with the relative impact of the intervention on disadvantaged groups, and the impact of the study context on the evaluation findings.

You will use the findings from Section C in Section D to examine the applicability of these results to the scope of your review.

Section D: Interpreting each paper

Like Sections B and C, Section D is done to each paper or report. In Section D you will identify the relevance of the study and its findings to the scope of your review and your review questions. You will also draw out other potentially useful lessons

from each paper, such as requirements or barriers for successful implementation of the intervention strategies.

If the purpose of your review is to formulate recommendations for a particular policy or practice setting, in Section D you will also assess the transferability of the intervention, and decide whether the findings could be replicated in your own setting.

Section E: Summarising the body of evidence

Section E is done only once – to complete your review. After you have reviewed each individual paper using Sections B, C and D, Section E allows you to prepare a summary of all the papers or reports collectively. This summary is then used to formulate your conclusions about the body of available evidence.

Section E is completed with reference to the purpose and scope of your review, and the review questions identified in Section A.

OPTIONS FOR USING THE SCHEMA

It is possible for an individual working alone to use the schema. However, the schema requires the user to describe and judge different aspects of research reports, and in many instances these judgements will be more soundly based if they are made from multi-disciplinary perspectives. We therefore recommend that, wherever possible, an appropriate multi-disciplinary group be convened to apply the schema. This accords with the NHMRC recommendation for the use of multi-disciplinary groups to develop and evaluate practice guidelines.[6]

The multi-disciplinary group should include individuals with expertise in the types of evaluative research to be considered in the review and individuals with expertise in the relevant area of public health practice. Preferably, the review group should also reflect the interests of those who will decide on the future implementation of the intervention(s) under consideration, and those potentially affected by such intervention(s).

Section A (forming the scope of the review) and Section E (forming a summary statement on the body of evidence) were particularly envisaged as a group process. The reading, review and summary of individual papers in Sections B, C and D may be completed in a number of ways, and can involve one or more individuals.

Different options for the use of the schema are as follows:

Option 1

- One person applies Sections B, C and D of the schema to review all the individual papers, and prepares a critical appraisal summary of each paper.
- Other members of the group read all the summaries of all the papers for review.
- The review group is convened to apply Section E of the schema and prepares a collective group statement on the body of available evidence.

In this option, Sections B, C and D of the schema are used to e*xtract and summarise information* to be considered by the wider review group. The primary reviewer should therefore aim to provide a clear description of each paper and to explain the basis of his/her judgements in Sections B, C and D.

Option 2

- All members of a review group read all of the original papers.
- Each person applies Sections B, C and D to each paper and produces his/her own summary statement on the body of evidence using Section E.
- The group convenes and each member presents his or her conclusions on the evidence from Section E.
- Members discuss areas of agreement and disagreement to formulate a consolidated group statement on the overall body of available evidence.

In this option, Section E is used to make individual judgements about the body of evidence. These individual judgements then inform debate among group members to arrive at a group judgment on the evidence. Thus each reviewer uses Sections B, C and D to present his/her reasoning and supporting facts to provide a clear basis for the conclusions in Section E.

Option 3

- A form of compromise between the options 1 and 2.
- Reviewers work in pairs or small groups to do Sections B, C, D and E of the schema, dividing the literature among the pairs or groups.
- The entire review group convenes to compare notes and formulate a joint statement on the evidence.

Advantages and disadvantages of these options

The advantage of the first option is the efficient use of time, with one person reading all the collated papers and summarising the relevant information for others. An important requirement with the first option is that the person allocated the task of reading the papers is highly skilled at critical appraisal of research publications. He or she must also be conscientious in extracting all the details required by others (who have not read the papers) in order to make an informed assessment of that evidence.

The second option may be preferred when there are not many papers to review. It is possible that reviewers from different disciplinary backgrounds will answer some of the questions in Sections B, C and D differently, particularly about studies that employed diverse methods. It may be important that everyone in the review group gains a direct or 'first hand' opinion of the available papers before forming their conclusions in Section E.

The third option may be preferred if there is a large body of literature, but reviewers wish to check the inter-rater reliability of their reading and review process for individual papers, before they rely on these summaries to complete Section E of the schema.

SOME ADDITIONAL POINTERS FOR USING THE SCHEMA

Expect some overlap between sub-sections B2–B4

In this schema we have purposefully guided you to distinguish between an intervention (the strategies), the setting and context of that intervention (social, organisational, political), the evaluation context (its background, purpose and the questions asked) and the evaluation methods (study design and rigour). These conceptual distinctions may seem unfamiliar at first, but we believe they will assist you in categorising and appraising different aspects of a paper or report. We acknowledge, however, that some questions in sub-sections B2–B4 may appear to overlap, particularly if the distinctions between an intervention, its context, and the evaluation that was conducted of that intervention are not clear in the paper. Rarely does only one 'right' or 'wrong' way exist to allocate information from the paper to different Sections of the schema.

Difficulties in reviewing literature

Evaluating evidence on interventions can be arduous and demanding. If you feel confused or frustrated, the following pointers may help you:

- Refer back to your review question in Section A to help you to define which particular aspects of a program you wish to focus on and learn about, and thus what you will include within your definition of an 'intervention'.
- Make the reasons for your decisions explicit.
- Cross-reference between sub-sections of the schema if the information you need to answer a question seems to have been already noted elsewhere.

Reviewing systematic reviews

If the paper you are reviewing is a systematic review, some questions in sub-sections B2-B4 may be difficult to apply because they were designed for individual evaluations, rather than for reviews of evaluations. Rather than applying these sections in the usual way, you can use the questions in B2–B4 as a checklist to consider whether the systematic review had adequately considered all the important aspects of the papers examined, and what type of information was overlooked or omitted in that review.

As for individual papers, you can identify the publication details of a systematic review in B1. A checklist for appraising the methods of a systematic review is included in sub-section B5. The findings of a systematic review can be summarised in Section C of the schema, and the applicability of those findings can be discussed in Section D. Your conclusions on a systematic review can be incorporated into your overall summary of the evidence in Section E. You may also choose to use existing reviews as a comparison to your own if they address similar literature.

Other uses of the schema

In addition to conducting reviews of evidence, several alternative uses for the schema were identified by those who participated in, or commented on, its development. They suggested that it could be used: as a reference for reviewing proposed evaluations of an intervention, as a checklist for preparing evaluation reports and papers, to assess existing reviews of evidence, and to identify further research and review questions based on gaps in the available evidence.

Although the schema was not developed for these purposes, and has not been tested for them, we have been aware of the potential for evidence critical appraisal criteria to influence future research and evaluation. We encourage others to conduct further research and development in these areas of potential application of the schema. The aim of such activities should be to continue to improve the quality and utility of evidence (and summaries of evidence) on public health interventions, and to promote links between public health research and public health policy and practice.

Section A: The scope of your review

Before you proceed to reviewing individual papers, you should be able to state why you are doing the review and what the review is about, and to describe the setting in which you are doing the review.

A1 THE FOLLOWING IS A CHECKLIST OF ITEMS THAT YOU SHOULD INCLUDE IN A STATEMENT ABOUT THE SCOPE OF YOUR REVIEW.

- What is the question that you want to answer in the review?
- How are you (and possibly others) going to use the findings of the review?
- Who asked for the review to be done?
- How has the review been funded?
- Who is actually carrying out the review?

CASE EXAMPLE*

This review seeks to determine whether there is evidence to support the introduction of meningococcal vaccine on a population-wide basis in Australia. This is to be examined with regard to professional and community perceptions of the burden of meningococcal disease, vaccine efficacy, acceptability of the vaccine by the community, and cost of including the vaccine in existing schedules. The review findings will be summarised in a paper to be considered by an expert committee that will make recommendations on whether or not the vaccine should be incorporated in the Australian immunisation schedule. The review was funded by the Commonwealth Government, and is being undertaken by the department of infectious diseases in a major Australian university (named). The review team comprises an infectious diseases physician, an epidemiologist, a statistician, a health economist, an academic general practitioner, and two representatives from a health consumers' association. (All members of the team are named, with their title and position or affiliation identified).

CASE EXAMPLE

This review seeks to determine the most effective ways of increasing the consumption of fruit and vegetables among people living in remote parts of Australia. It is being undertaken at the request of, and with funding from, the Western Area Health Service. The Health Service is seeking to implement State nutrition policy, and is in the process of planning local interventions. The review findings, and recommendations based on them, will be presented to the Area Executive. The review is being coordinated by the Area Population Health Unit, and the review team comprises a community nutritionist, a health promotion officer, a representative of one of local shires, and a member of the local chamber of commerce with a knowledge of food distribution and retailing. (All members of the review team are named and their title and position or affiliation identified).

* Note: all case examples in the Schema are hypothetical.

CASE EXAMPLE

The review seeks to determine whether school-based suicide prevention programs are effective. It is intended for the Cochrane Library of Systematic Reviews. The project is being done on a voluntary basis (without specific funding) by two psychiatrists, one of whom has received training from the Cochrane Collaboration, and an educational psychologist employed in the State school system. (All members of the review team are named, with their title and position or affiliation identified).

Section B: The papers in the review

B1 PUBLICATION DETAILS

Identify the publication details for each paper or report to be appraised using the schema.

Include the following information.

- Title
- Authors
- Date
- Publication information e.g. name of journal (volume & page numbers) or publisher, ISBM etc
- Type of report

  For example, is this a peer-reviewed journal article, a report from a government department, a non-government agency publication or another type of publication (specify).
- Have related papers or reports been published? If so, what are they?

For example, you may be aware of prior or later evaluations of the same program from the references given in the paper, or from your own knowledge of the literature. If you have not yet examined these papers, note the citations and whether you will include the reports in your review.

B2 SPECIFYING THE INTERVENTION

B2.1 Exactly what intervention was evaluated in the study?

Look for the following information to describe the intervention fully.

- What was/were the main intervention(s)? Note whether the intervention(s) involved multiple strategies and how these were combined.
- What problem was the intervention intended to address?
- Where and when did the intervention take place? [cross-refer to B3.1]
- Was it a one-off, time-limited intervention, or was it an ongoing or repeated intervention?
- For how long was the intervention implemented?
- Were different types and different levels of intervention studied?

  For example: printed materials compared to a television campaign to promote sun protection; or one week compared to three weeks of a daily television campaign.
- Who did the intervention target?
- Who implemented the strategies used (what skills and/or qualifications did they have)?

CASE EXAMPLE

The intervention was a campaign to promote healthy eating among all staff in a teaching hospital in the western suburbs of Sydney. The intervention consisted of two strategies: a change to the foods available for sale in the staff canteen (more low-fat, high-fibre and vegetarian dishes) and halving the price of low-fat and high-fibre foods. A trial of the intervention was conducted for a six-month period from January to June 1997. The strategies evaluated in 1997 in this study were developed and implemented by the hospital Catering Department (catering manager and cooks), in consultation with the Department of Nutrition and Dietetics.

B2.2 What was origin of the intervention?

In your description of the origin of the intervention consider the following:

- Who was responsible for deciding that the intervention should occur?
- Was the intervention planned and developed for identifiable health policy and/or program objectives?
- Was the intervention carried out for the purposes of research?
- Did the intervention evolve without a formal research or health policy framework? If so, how did it come about?
- Was the target community involved in initiating and/or developing the intervention? To what degree?

CASE EXAMPLE

The intervention started out as a youth work experience scheme introduced in 1996 by a regional chamber of commerce and involved local business interests. Members of the local youth centre participated in planning and promoting the scheme. The intervention was not originally planned to fulfil health policy objectives, and not implemented for research purposes. Rather the scheme evolved from the community's desire to address local issues of youth unemployment, and from a perception by local business owners about the disenfranchisement and disengagement of unemployed teenagers from the rest of the community, resulting in vandalism and graffiti in the business district. A few years later the State Health Department considered the potential of this scheme as an intervention to reduce youth suicide and commissioned an evaluation of its impact on health outcomes.

CASE EXAMPLE

The intervention was a program carried out in another country (specify) to alter infants sleeping positions to reduce the incidence of cot death. The program was implemented in that country's Health Department following the publication of several observational studies suggesting a link between infants sleeping position and cot death. It was a policy initiative that was planned and implemented as a result of published research evidence and media reporting of that evidence.

B2.3 If the intervention involved a degree of formal planning, what was the rationale for the strategies selected?

When describing the rationale for the intervention consider what information is available about the following:

- What reasons were given in the paper for selecting the particular intervention strategies that were used, rather than other strategies?

  For example, why was parent education in post-natal wards and through early childhood health services chosen rather than a mass media campaign (in the case example described in B2.2)?

- Did reasons for selecting the intervention or its strategies include a systematic review of evidence (i.e. a review of evaluation research conducted on similar interventions)?
- Was a formal theory identified as a basis for the intervention strategies adopted (e.g. educational, behavioural, environmental or community development theories)

B2.4 What organisations or individuals sponsored the intervention (with funding or in-kind contributions)? Where relevant, give details of the type of sponsorship provided.

B3 IDENTIFYING THE INTERVENTION CONTEXT

B3.1 What aspects of the context in which the intervention took place were identified in the paper?

Examine the information provided in the report about the context in which the intervention was implemented. Include planned and unplanned changes to the context that supported the intervention, as well as those that may have hindered the intervention. Look for the following information.

- The time when and place where the intervention took place? [cross-refer to B2.1]
- The local policy environment, including institutional policies and management support for the intervention
- The broader political environment
- Other social and cultural factors, concurrent social changes or social movements

- Other organisational factors, structural or physical environment
- Economic climate and the availability of resources
- Training, skills and experience of those implementing the intervention

CASE EXAMPLE

The hospital-based canteen intervention described in B2.1 above was a part of a five-year program (1995–2000) to develop and implement a hospital-wide food and nutrition policy for staff and patients. The food and nutrition policy was initiated by the hospital general manager and supported by other senior managers, clinical staff and staff unions. The policy was prepared by the Department of Nutrition and Dietetics in consultation with hospital staff and local community between 1995 and 1996. Extra resources were allocated for implementing the policy in the hospital budget (although the amount is not specified in the paper). Catering staff received two half days of training about the modifications implemented in their canteen. The intervention coincided with two articles in the local paper about healthy eating. Although the news paper articles were not planned as part of the intervention (it was initiated by the journalist) the authors comment on their contribution to raising awareness among the hospital staff target group.

B3.2 Was enough information provided in the paper to enable you to describe the intervention and its context as required above?

If not, identify the major deficiencies in the information provided.

B4 THE EVALUATION CONTEXT – BACKGROUND, PURPOSE AND QUESTIONS ASKED

In addition to describing the intervention and its context, it is important to consider the background of the evaluation that was conducted of that intervention. If you understand the context of an evaluation it will help you to interpret its findings.

B4.1 Who requested or commissioned the evaluation and how was the evaluation funded?

B4.2 For what purpose was the evaluation conducted and from whose perspective?

The aims of an evaluation determine the questions that are asked, and the questions that are not asked. Look for information to answer the following:

- Was the evaluation conducted for the purpose of research, for a decision about funding or continued funding of an intervention, to support an identified course of action, or for other reasons? (specify)
- Were the questions framed from a researcher perspective, a policy maker perspective, a community interest group perspective, or other? (specify)
- Was enough information provided for you to determine the overall purpose and framing of the evaluation that was conducted?

B4.3 Exactly what questions were asked in the evaluation reported in the study?

B4.4 What measures of effect or intervention outcomes were examined?

For example, evaluation of an immunisation program may focus on one or more of the following outcomes – access to immunisation services, distribution and cold storage of vaccines, the delivery of immunisation services, immunisation rates, or the impact of an intervention on occurrence of vaccine-preventable disease.

- Were the measures of effect or intervention outcomes clearly identified in the paper and adequately defined?

B4.5 What was the anticipated sequence of events between the intervention strategies and the measures of effect or intended intervention outcomes?

This may also be referred to as the intervention mode of action or causal pathway or the evaluation program logic.

CASE EXAMPLE

A canteen-based nutrition campaign used price changes in the canteen to promote the purchase of low-fat and high-fibre foods and other healthy food choices. Thus it was anticipated that canteen price changes would contribute to an overall increase in daily fibre intake and a reduction in daily fat consumption among the hospital staff who eat at the canteen (program logic). These effects would be identified in pre- and post-intervention 24-hour food records to determine daily fibre and fat consumption (measures of effect).

B4.6 Were the measures of effect or intervention outcomes realistic and compatible with the sequence of events outlined in B4.5?

B4.7 Were the measures of effect or intervention outcomes validated or pilot tested? If so, how?

B4.8 How well did the observations or measures address the research questions asked in the study?

B4.9 Was there a capacity to identify and measure unanticipated, as well as anticipated, benefits and adverse effects?

B4.10 Did the observations or measures include all the important and relevant individual and group-level effects?

For example, a campaign to promote healthy eating could be assessed by its impact on the diet of defined individuals (individual-level effects) or by its impact on supermarket sales of certain food items (group-level effects).

- If important measures were missing, specify which ones.

B4.11 If the research was not primarily an economic evaluation, were economic factors considered?

Look for information to answer the following questions.

- How much did the intervention cost?
- What resources were needed to implement the intervention?
- Was value for money assessed? Were intervention costs and resources weighed against intervention benefits (or harms)?

B4.12 What was the timing of the evaluation in relation to the development and implementation of the intervention?

Evaluations conducted within research or policy frameworks can often be planned in advance of the implementation of the intervention. Conversely interventions which emerge from prevailing circumstances are often evaluated long after they were initially conceived and implemented. The timing and sequence of events in an evaluation will impact on the type and quality of data collected e.g. whether evaluators are able to collect pre-intervention baseline data.

- Was the evaluation planned before or after the intervention was implemented?
- Did the evaluation begin before or after the intervention was implemented?

B4.13 Was the intervention adequately implemented in the setting in which it was evaluated?

Knowing how well an intervention and its various strategies were implemented will help you to interpret the evaluation findings. This is particularly important if the evaluation findings are negative or inconclusive. For example, if an intervention was poorly implemented it would be unlikely for a study to demonstrate its effectiveness.

Look for information to answer the following questions.

- Were monitoring and process measures collected about the implementation of the intervention? If so, specify.
- Did the intervention implementation differ from what was planned? If so, what was the rationale or explanation for the difference?
- Did the evaluators check whether the intervention had reached the correct target group and in sufficient numbers, before impact and outcome measures were taken?
- Was enough information provided in the report to enable you to determine overall how well the intervention was implemented? If so, was the intervention implemented adequately to warrant evaluation of its impact or outcomes?

B4.14 Was the intervention ready for the type of evaluation that was conducted?

Consider the following information:

- What was the stage of development of the intervention at the time of its evaluation?

For example, some interventions go through several stages of development and evaluation. An intervention developed for the first time may undergo detailed process evaluation. Interventions that have been shown to be effective in some settings may undergo dissemination evaluation to determine whether they can be implemented more widely.

- Was a pilot study or 'process' evaluation done before an 'impact' or 'outcome' evaluation?
- Have evaluations of similar interventions been done in other settings that have shown the intervention to be effective? If so, were the references and findings cited in the paper?

CASE EXAMPLE

Canteen-based pricing and product strategies to promote healthy eating have been tested in the USA and Europe and been shown to have an impact on staff food choices (references given). The intervention evaluated in this study was pilot tested in 1996 (reference given), and the local strategies appeared to be ready for the impact and outcome evaluation reported in the paper.

B4.15 Was there a significant potential for conflict of interest (in the way the intervention and/or its evaluation were funded and implemented) that might affect interpretation of the findings?

Consider the following questions:

- What was the relationship between those involved in planning, implementing and funding the intervention (their objectives and interests) and those conducting the evaluation of that intervention (their objectives and interests)?
- What is the potential impact of the relations on the study findings?
- Was enough information provided to make an assessment about potential conflicts of interest? If not, what information is missing?

B5 THE METHODS USED TO EVALUATE THE INTERVENTION

B5.1 What type(s) of research was (were) used to evaluate the intervention?

For example, identify if the methods used were epidemiological, qualitative, economic or multiple methods.

B5.2 Was the evaluation conducted from a single perspective or multiple perspectives? Give details.

Multiple perspectives can strengthen an evaluation. Multiple perspectives can be achieved by combining research methods, using a number of different observations or measures, taking impact and outcome measures over several points in time, and comparing the perspectives of multiple observers.

B5.3 What study design was used in the evaluation?

B5.4 How appropriate was the study design in relation to the evaluation questions posed in the study?

Take into account the intervention context and the evaluation questions posed about the intervention to determine if the study design was appropriate, or if it could have been improved. Consider the following:

- What would the best, feasible study design have been?

  For evaluations that aim to quantify intervention effectiveness, take into account the hierarchy of study designs outlined in Appendix 1 (Figure 1).

- Did the study design used differ from this? If so, how?
- Were reasons given for the design used? If so, what were they?

B5.5 Appraise the rigour of the research methods used in the study using the relevant checklist(s) in Appendix 2.

Appendix 2 includes several guides for critically appraising the rigour of research methods. You should select the relevant critical appraisal guide according to the method(s) used in the study.

- Systematic review of studies of intervention effectiveness (use Guide 1)
- Randomised Control Trial (Guide 2)
- Observational study (Guide 3)
- Economic evaluation (Guide 4)
- Qualitative study (Guide 5)

Evaluations of public health interventions often rely on a combination of research methods (e.g. quantitative and qualitative). Where two or more methods (or study designs) are reported, you will need to refer to more than one critical appraisal guide. This may highlight discrepancies in the quality of different components of the study, or discrepancies in the adequacy with which those components were reported.

Once you have appraised the study using the relevant checklist(s) go to question B5.6.

B5.6 What are your conclusions about the adequacy of the design and conduct of the research methods used to evaluate the intervention?

Base your conclusions on your answers to questions in B5.1–B5.4 and your application of the checklists in B5.5

B5.7 Are the reported findings of the evaluation likely to be credible?

Take into account your conclusions about the methods used in the study (B5.6), as well as any other limitations to the evaluation, and potential conflicts of interest, identified in sub-section B4.

Consider the following in your answer:

- Are the measures of effect or intervention outcomes likely to be believable?

- Are observed effects attributable to the intervention, or do other possible explanations exist?
- If you conclude that the reported findings are (or may be) credible go to Section C.
- If you conclude that the findings are not (or unlikely to be) credible, go to Section D and answer question D1.3 only, and then move on to the next paper or report to be appraised.

- **If you conclude that the reported findings are (or may be) credible go to Section C.**
- **If you conclude that the findings are not (or unlikely to be) credible, go to Section D and answer question D1.3 only, and then move on to the next paper or report to be appraised.**

Section C: Describing the results from the papers selected

C1.1 What findings were reported in the study?

Look for the following information:

- What were the beneficial and adverse effects? Where relevant, give the estimates of effect and their confidence intervals.
- Were there any unanticipated effects (i.e. did the intervention have an effect on the community or setting other than the stated objectives)?
- Were there any side effects or harms for the target group, or for those recruited to carry out the intervention?
- What was the cost and cost effectiveness of the intervention?

C1.2 If the study specified measurable or quantifiable targets, did the intervention achieve these objectives?

For example, an objective may be to achieve a 50% reduction in the prevalence of smoking, but the results report a 20% reduction, therefore the study did not achieve its stated objectives, although the findings were statistically significant.

C1.3 Were reported intervention effects examined among sub-groups of the target population?

Sub-groups may be identified by (for example) gender, age, socio-economic status or ethnicity.

If sub-group effects were examined, answer the following questions:

- What sub-groups were identified and explored?
- What were the reasons given for the sub-groups examined?
- Was the relative impact on disadvantaged groups assessed?
- How did the effects of the intervention differ among the sub-groups explored?
- Were reasons for different intervention effects in the sub-groups explored? If so, what was/were the explanation(s) given?
- Was the sub-group analysis a pre-planned component of the evaluation or was it a post-hoc analysis of the data?

C1.4 Are there other important sub-group effects that should have been considered (but were not)?

If yes, identify important sub-group effects that should be have been considered?

C1.5 Was the impact of the intervention context on the effectiveness of the intervention investigated in the study?

For example, researchers may report whether an intervention was easier or more difficult to implement in some settings compared to others. They may also report whether it was more or less effective in different physical settings or social circumstances. Insufficient detail about the context is often an important limitation in the evidence when it comes to appraising the applicability of the study findings and the transferability of the intervention to other settings.

Include the following in your answer:

- Was there enough detail provided about the impact of the context on the effectiveness of the intervention so that enabling factors can be replicated and adverse effects avoided in the future?
- Are there potentially important contextual influences that should have been examined (but were not)? If so, what are they?

C1.7 How dependent on the context is/are the intervention(s) described in the paper?

Intervention strategies and intervention effects vary in the degree to which they are context dependent.

For example, the efficacy of a screening procedure may not depend much on the social context, while a campaign promoting its uptake by the general public is likely to be very context-dependent.

C1.8 Were the intervention outcomes sustainable?

It is quite common for evaluations to measure effects immediately after an intervention, but not to consider the sustainability of those effects. This is often an important gap in the evidence. Consider the following:

- For how long were data collected about the effects of the intervention?
- How long were the reported intervention effects actually sustained?

C1.9 Did the study examine and report on the value of the measured effects to stakeholders interested in or affected by them?

A specific target group, the wider community, local practitioners, fund holders and policy makers are likely to value differently reported intervention effects. The evaluation of an intervention may include the step of presenting its findings to key stakeholders and asking for feedback on the utility and value of those findings.

For example, intervention effects that are clinically important compared to those representing value for money or support a political agenda may be viewed differently by practitioners, managers or government policy makers.

- If there was a report on the value of the reported effects, was this speculative on the part of the authors, or based on empirical data? Give details.

Section D: Interpreting each paper

D1.1 How relevant is the paper to the scope of your review, as identified in Section A? Give details.

D1.2 How well did the study answer your review question(s)? Give details.

D1.3 Are there other lessons to be learned from this study?

For example, the paper may not have answered your question about the effectiveness of a particular intervention, but you may identify useful lessons relating to the development and implementation of this type of intervention, or factors that would improve future evaluations of similar interventions.

If you are conducting the review for the purpose of making recommendations for a particular policy or practice setting answer questions D1.4 to D1.8, otherwise go to Section E.

D1.4 Are the essential components of the intervention and its implementation described with sufficient detail and precision to be reproducible?

D1.5 Is the intervention context, as described in the paper examined, comparable to the intervention context that is being considered for future implementation of the intervention?

- If the intervention context is similar, then what are the similarities?
- If the intervention context is different, then what are the differences?
- Is your capacity to implement the intervention in the new setting comparable to the capacity described in the paper?

For example, the capacity to implement the intervention may depend on resources, skills of local people, organisational factors or the policy and political environment.

D1.6 Are the characteristics of the target group studied in the paper comparable to the target group for whom the intervention is being considered?

- If the target groups are similar, then what are the similarities?
- If the target groups are different, then what are the differences?
- If there are significant differences what are the potential implications for the applicability of the research? Why?
- Overall, can the reported findings be applied to the new population for whom the intervention is being considered?

D1.7 If an economic evaluation was conducted, did the report include and address the details required in order to make an informed assessment about the applicability and transferability of the findings to other settings?

D1.8 If enough information was provided, are the findings of the economic evaluation relevant and transferable to your setting?

- Are the effects of the intervention likely to be important to the people who will be affected by them?

- Are the effects of the intervention likely to be important to the people who will be making decisions about its future funding and implementation?

You may need to consider the magnitude of the intervention effects as well as their statistical significance, the individual (clinical) and population-wide importance of the effects, and also the social, political and economic importance of those effects.

Section E: Summarising the body of evidence

You are now ready to make a judgement on the entire body of evidence (i.e. all the papers that you have reviewed). It is desirable for this process to be a team effort. Your judgement will be based on your consideration of individual papers as described in Sections B, C and D. You should relate your judgement to the original objectives of your review, as identified in Section A.

Section E is in two parts.

- In the first part, you are asked to: group the papers according to their research questions and intervention strategies; grade the overall quality of the studies within each group; assess the consistency of the findings among the stronger studies within each group; and determine the applicability of the studies to your review.
- Your formulations in the first part will help you in the second part to reach a conclusion about the strengths and weaknesses of the evidence for your purposes (as specified in Section A), and to identify gaps in the evidence.

E1 RESEARCH QUESTIONS, INTERVENTION STRATEGIES, QUALITY, CONSISTENCY, AND APPLICABILITY

To reach an overall formulation, you should group together papers in which similar research questions are asked and similar intervention strategies are used (E1.1). You should then work through Sections E1.2 and E1.4 for one group of papers, before moving on to the next group of papers.

E1.1 Grouping papers by research questions and intervention strategies

Group papers with similar research questions and similar intervention strategies. For each group, enter the research question and a brief description of the intervention into the first column of the summary table in Appendix 3.

Your groups will be determined by the questions that you have posed for the review. For example, you might form two groups of papers which ask 'How effective are pricing modification strategies for reducing dietary fat consumption?'. One group would comprise papers investigating pricing strategies applied in workplace canteens, and the other group would comprise papers investigating pricing strategies applied in supermarkets.

E1.2 Quality of studies

Assess the quality of each study in each group on a scale from 1 (poor) to 5 (excellent). This assessment should take into account the adequacy of information provided about the intervention and its evaluation and the design and conduct of the study (i.e. the methods). Mark each study on the scale provided on the summary form (Appendix 3, second column).

E1.3 Consistency of findings

Assess and grade the consistency of the findings among the stronger studies in each group on a scale from 1 (findings among the stronger studies are inconsistent) to 5 (findings among the stronger studies are highly consistent with each other).

Mark your assessment on the scale provided on the summary form (Appendix 3, third column).

E1.4 Applicability of studies

Determine whether or not the stronger studies, which have consistent findings, can be applied to your review context, which you have described in Section A. Categorise applicability as:

- applicable
- possibly applicable
- not applicable

E2 FORMULATING A SUMMARY STATEMENT

When you have completed E1.1–E1.4 for all of the papers which you reviewed, you will have developed a 'map' of the available evidence. Use this information to formulate a summary statement on the body of evidence by answering the questions below.

E2.1 Did studies which examined similar intervention strategies and with similar research questions produce consistent results?

E2.2 Did studies with different research questions produce compatible results?

E2.3 Overall, what does the body of evidence tell you about the intervention?

In your summary, include the following:

- Has the intervention been shown to work? To what degree?
- In what context has it been shown to work?
- For whom did it work, and for whom did it not work?
- Can you identify factors that are necessary for similar interventions to be effective in other settings?

E2.4 Are there important gaps in the evidence? If so, what are they?

E2.5 To what degree are the review findings useful for your purposes, as identified in Section A?

Consider the following:

- How well do the review findings answer your review question(s)?
- If relevant, are the review findings applicable and useful for your policy or practice setting?

E2.6 What are your recommendations based on this review?

Formulate recommendations according to the purpose of the review identified in Section A. If appropriate, you may wish to consider making recommendations on:

- Further research and evaluation on the public health intervention(s) examined

  This may be a strong recommendation if the review findings are inconclusive. For example, if the evaluation methods were generally poor, but the described intervention seems promising, you may recommend a better evaluation of such an intervention in another setting. If the evaluation methods were good but the intervention was inadequately planned and implemented, you may recommend better development of the intervention prior to further evaluations.

- Other reviews of available evidence

  For example, you may identify related review topics on which there appears to be available literature that has not yet been reviewed.

- Current or future public health policy and practice

  For example, if your review findings indicate that it would be desirable to modify current public health policy or practice, or if your review findings strongly support the continued funding of existing interventions.

Appendix 1

Figure 1: Hierarchies of study design and designation of levels of evidence[8]

(refer to Section B5.4 of the schema)

Study design	Level of evidence
Systematic review of all relevant randomised control trials (RCT)	I
Properly designed RCT	II
Well-designed pseudo-randomised controlled trial (e.g. alternate allocation)	III-1
Comparative studies (or sytematic reviews of such studies) with concurrent controls and allocation not randomised, cohort studies, case-control studies, or interrupted time series with a control group	III-2
Comparative studies with a historical control, two or more single arm studies, or interrupted time series without a parallel control group	III-3
Case series, post-test or pre-test/post test, with no control group	IV

This hierarchy of study designs (also commonly referred to as 'levels of evidence') was developed by NHMRC and others[2,9] to indicate the relative potential for bias in alternative epidemiological studies (there is an increasing potential for bias from top to bottom).

It is important to be aware of the relative strengths of alternative epidemiological studies. However, when deciding if a study is 'good enough' to inform your conclusions about an intervention (sub-section B5 of the schema), it is also important to note that in some public health settings it may only be feasible, or politically and/or ethically acceptable, to conduct observational studies.

Appendix 2: Critical appraisal guides 1 to 5

SUPPLEMENTS TO QUESTION B5.5

Supplementary Guide 1: Appraising reviews

Supplementary Guide 2: Appraising randomised controlled trials

Supplementary Guide 3: Appraising observational studies

Supplementary Guide 4: Appraising economic evaluations

Supplementary Guide 5: Appraising qualitative studies

Supplementary Guide 1: Appraising reviews

A SUPPLEMENT TO QUESTION B5.5

This is a checklist of questions to help you decide if the methods used in an existing review were rigorous.

When you have appraised the methods using this supplementary guide, return to question B5.6 of the main Schema.

This guide has been adapted from checklists available from:

The Critical Appraisal Skills Program (CASP), Public Health Resource Unit, Institute of Health Sciences, Oxford, UK, http://www.phru.org/casp/

Undertaking Systematic Reviews of Research on Effectiveness, CRD's Guidance for those Carrying Out and Commissioning Reviews. Stage I, Appraising available reviews. http://www.york.ac.uk/inst/crd/report4.htm

Oxman AD et al. Users' Guides to the Medical Literature, VI How to use an overview. JAMA 1994; 272(17): 1367–1371.

G1.1 Did the review address a clearly focused research question?

A research question should be 'focused' in terms of the:

- population studied
- intervention given (exposure)
- outcomes considered

G1.2 Did the review include the right type of studies?

Studies should:

- address the review's research question
- have an appropriate study design

G1.3 Did the reviewers try to identify all relevant primary studies?

Did they:

- search all relevant bibliographic databases?
- follow-up from reference lists?
- use personal contact with experts?
- search for unpublished studies?
- search for non-English studies?

G1.4 What criteria were used to include or exclude primary studies and how were they applied?

G1.5 Did the reviewers assess the quality of the primary studies included in the review?

Did they:

- use explicit criteria?
- check the criteria were applied appropriately and consistently?

G1.6 How were the data from the primary studies synthesised?

- Were differences between studies investigated?
- Were the reasons for any variations in results discussed?
- Were the results of the primary studies combined (pooled)? If so, was it reasonable to combine the results given the similarities and differences between the studies reviewed?
- Do the reviewers' conclusions flow from the evidence examined?

PLEASE RETURN TO QUESTION B5.6 IN THE MAIN SCHEMA.

Supplementary Guide 2: Appraising randomised controlled trials

A SUPPLEMENT TO QUESTION B5.5

This is a checklist of questions to help you decide if a randomised controlled trial was rigorous.

When you have appraised the methods using this supplementary guide, return to question B5.6 of the main Schema.

This guide has been adapted from checklists available from:

The Critical Appraisal Skills Program (CASP), Public Health Resource Unit, Institute of Health Sciences, Oxford, UK, http://www.phru.org/casp/

Schulz and Jadad [full citation will be provided in next version of this schema]

Guyatt GH, Sackett DL, Cook DJ. Users' Guides to the Medical Literature. II. How to use an article about therapy or prevention. JAMA 1993; 270: 2598–2601 and 271: 59–63

G2.1 Was the assignment of study participants to the intervention (exposure) randomised?

- Was the method of randomisation appropriate?

Note: *study participants can be randomised individually or as a 'cluster' (group). The method of randomisation is appropriate if it allows each study participant (or cluster) to have the same chance of receiving each intervention option. Investigators determining participants' eligibility and allocating interventions should not be able to predict which intervention is next in line. Alternate methods of allocation are not random.*

G2.2 Were all the participants who entered the trial accounted for at its conclusion?

- How complete was the follow-up of study participants?
- Were participants analysed in the groups to which they were randomised?

Note: *participants who were included in the study but did not complete the observation period or who were not included in the analysis should be described. The number and the reasons for withdrawal in each group must be stated.*

G2.3 Were all the groups similar at the start of the trial?

Consider factors, other than the intervention, that might affect the outcome, such as age, gender, social class or ethnicity.

G2.4 Aside from the intervention being tested, were the groups exposed to similar influences before and during the trial?

Consider environmental factors that were not part of the intervention but which may effect the outcome, e.g. reports in local media or concurrent political developments.

G2.5 Aside from the intervention being tested, were the groups treated equally?

- Were the groups reviewed at the same time intervals?
- Did they have the same follow-up procedures?

PLEASE RETURN TO QUESTION B5.6 IN THE MAIN SCHEMA.

Supplementary Guide 3: Appraising observational studies

A SUPPLEMENT TO QUESTION B5.5

This is a checklist of questions to help you decide if the methods used in observational studies (cohort, case control or case series) were rigorous.

When you have appraised the methods using this supplementary guide, return to question B5.6 of the main Schema.

This guide is an extract from a report produced by The University of York NHS Centre for Reviews and Dissemination:

Undertaking Systematic Reviews of Research on Effectiveness. CRD's Guidance for those Carrying Out or Commissioning Reviews. CRD report number 4 (2nd edition) March 2001. Stage II, Conducting the Review, Phase 5 Study Quality Assessment. Khalid S Khan, Gerben ter Riet, Jennie Popay, John Nixon & Jos Kleijnen.

The full text of this report can be viewed at:
http://www.york.ac.uk/inst/crd/report4.htm

Section 2.5.5.2 of this report includes notes on appraising observational studies.

COHORT STUDIES

G3.1 Is there sufficient description of the groups and the distribution of prognostic factors (which may affect the outcome)?

G3.2 Were the groups assembled at a similar point in their disease (or risk factor) progression?

G3.3 Was the exposure to the intervention reliably ascertained?

G3.4 How comparable were the groups in all important confounding factors?

G3.5 Was there adequate adjustment for the effects of these confounding variables?

G3.6 Was a dose–response relationship between intervention and outcome demonstrated?

G3.7 Was outcome assessment blind to exposure status?

G3.8 Was follow-up long enough for the outcomes to occur?

G3.9 What proportion of the cohort was followed up?

G3.10 Were drop-out rates and reasons for drop-out similar across intervention and unexposed groups?

CASE CONTROL STUDIES

G3.11 Is the case definition explicit and adequate?

G3.12 Has the disease-state (outcomes) of the cases been reliably assessed and validated?

G3.13 Were the controls representative of the same population source as the cases?

G3.14 How comparable are the cases and controls with respect to potential confounding factors?

G3.15 Were interventions and other exposures assessed in the same way for cases and controls?

G3.16 How was the response rate defined?

G3.17 Were the non-response rates and reasons for non-response the same in both groups?

G3.18 Is it possible that over-matching has occurred in that cases and controls were matched on factors related to the exposure (intervention)?

G3.19 Was an appropriate statistical analysis used (matched or unmatched)?

CASE SERIES

G3.20 Is the study based on a representative sample selected from a relevant population?

G3.21 Are the criteria for inclusion explicit?

G3.22 Did all individuals enter the survey at a similar point in their disease (or risk factor) progression?

G3.23 Was follow-up long enough for important events to occur?

G3.24 Were outcomes assessed using objective criteria or was blinding used?

G3.25 If comparisons of sub-groups are being made, was there sufficient description of the sub-groups and the distribution of prognostic factors?

PLEASE RETURN TO QUESTION B5.6 IN THE MAIN SCHEMA.

Supplementary Guide 4: Appraising economic evaluations

A SUPPLEMENT TO QUESTION B5.5

This is a checklist of questions to help you decide if the methods used in an economic evaluation were rigorous.

When you have appraised the methods using this supplementary guide, return to question B5.6 of the main Schema.

This guide is based on checklists available from:

The Critical Appraisal Skills Program (CASP), Public Health Resource Unit, Institute of Health Sciences, Oxford, UK, http://www.phru.org/casp/

Drummond MF, Stoddard GL, Torrance GW. Methods for the Economic Evaluation of Health Care Programs. Oxford, Oxford University Press, 1987.

G4.1 Was a well-defined question posed?

- Is it clear what the authors were trying to achieve?

G4.2 Was a comprehensive description of the competing alternatives given?

- Can you tell who did what to whom, where and how often?

G4.3 Does the paper provide evidence that the program would be effective?

- Does the program do more good than harm?
- How good is the evidence of effectiveness?

G4.4 For each alternative option, were all the important and relevant consequences (in terms of resource use and health outcome):

a) identified?

What perspectives were taken?

b) measured accurately in appropriate units prior to evaluation?

c) valued credibly?

Have opportunity costs been considered?

G4.5 Were resource use and health outcome consequences adjusted for different times at which they occurred (discounting)?

G4.6 Was an incremental analysis of the consequences and costs of alternatives performed?

G4.7 Was an adequate sensitivity analysis performed?

- Were all the main areas of uncertainty considered?

PLEASE RETURN TO QUESTION B5.6 IN THE MAIN SCHEMA.

Supplementary Guide 5: Appraising qualitative studies

A SUPPLEMENT TO QUESTION B5

This is a checklist of questions to help you decide if the methods used in a qualitative study were rigorous.

When you have appraised the methods using this supplementary guide, return to question B5.6 of the main Schema.

This guide has been adapted from a checklist available from:

The Critical Appraisal Skills Program (CASP), Public Health Resource Unit, Institute of Health Sciences, Oxford, UK, http://www.phru.org/casp/

G5.1 Was there a clear statement of the aims of the research?

Can you tell:

- what the authors were trying to find out?
- why it was important?
- how it was relevant?

G5.2 Was a qualitative method appropriate to address the aims of the research?

- Did the research seek to understand, illuminate or explain the subjective experience or views of those being researched in a defined context or setting?

G5.3 Was the sampling strategy appropriate to address the aims of the research?

- Is it clear
  a) from where the sample was selected and why?
  b) who was included in the sample and why?
  c) how they were selected and why?
  d) whether some people approached chose not to participate and why?
- Was the sample size justified?

G5.4 Were the data collected appropriately to address the research issue?

- Is it clear:
  a) where the data were collected and why that setting was chosen?
  b) how the data were collected and why (focus group, interview, observations etc.)?
  c) how the data were recorded and why?
  d) if the methods of data collection were modified during the process and why?

G5.5 Was the data analysis sufficiently explicit?

- Is it clear:
  a) how the analysis was done?
  b) how the categories/themes/concepts were derived from the data (i.e. is there adequate description of the researchers process and analytical decisions)
- Are you confident that all relevant data were taken into account?

G5.6 Was the data analysis sufficiently rigorous?

- Have steps been taken to assess the credibility of the findings?
- Was there adequate discussion of the evidence both for and against the researchers' arguments.
- Did researchers attempt to feed their results back to the study participants?
- Where appropriate, did they use and compare different sources of data about the same issue (triangulation)?
- Was the analysis repeated by more than one researcher to ensure reliability?

G5.6 Has the relationship between the researchers and participants been adequately described and considered?

- Did the researchers critically examine their own role, potential influences and biases?
- How was the research explained to the participants?

G5.7 Is there a clear statement of the findings?

- Are the findings explicit and easy to understand?

G5.8 Did the researchers indicate links between their presented data, their findings, and their conclusions?

PLEASE RETURN TO QUESTION B5.6 IN THE MAIN SCHEMA.

Appendix 3

A table for summarising all the papers reviewed (refer to Section E1)

Note: this summary table is an example only. To summarise your own review you may need to enlarge the table, or expand it with additional rows. Alternatively you may wish to modify its layout to suit your own needs.

Group papers by research question and intervention strategies examined	**Rate quality of individual studies** **1 ——— 5** *Scale: 1 (poor) to 5 (excellent)*	**Decide on consistency among good quality studies** **1 ——— 5** *Scale: 1 to 5* *1 (findings are inconsistent)* *5 (findings are highly consistent)*	**Decide on applicability of the consistent findings** *Responses:* • *Applicable* • *Possibly applicable* • *Not applicable*
Group 1 What are the effects of pricing strategies applied in workplace canteens on dietary fat intake of staff?	***11 papers in group 1*** *Rating 1 = papers 1, 7, and 11* *Rating 2 = papers 2, 3, and 10* *Rating 3 = paper 8* *Rating 4 = papers 6, 9 and 5* *Rating 5 = paper 4*	*Consistency of findings among papers 6,9 and 4 is rated '4'* *Consistency between papers 6, 9, 5 and 4 is rated '3'*	*The findings of papers 6, 9 and 4 are 'Applicable' to our review context*
Group 2 What are the effects of pricing strategies applied in supermarkets on dietary fat intake of local customers?			

References

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2 NHS Centre for Reviews and Dissemination. 'Undertaking Systematic Reviews on Effectiveness, CRD's Guidance for Carrying Out or Commissioning Reviews.' University of York, 2001. Online: http://www.york.ac.uk/inst/crd/report4.htm

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4 National Public Health Partnership (NPHP). A Planning Framework for Public Health Practice. NPHP, 2000. Online: http://www.nphp.gov.au/ppi/planning/planfrwk/index.htm

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8 NHS Research and Development Centre for EBM. Levels of Evidence. Online: http://cebm.jr2.ox.ac.uk/docs/levels.html