SCIE systematic research reviews: guidelines

(2nd edition)

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SCIE systematic research reviews: guidelines
(2nd edition)

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Acknowledgements

This paper borrows extensively from the work of our erstwhile colleague, Esther Coren, who led the team that wrote the first edition of the guidance (2006).

Glossary

Knowledge review: a SCIE systematic research review combined with knowledge from practice environments, gained from a SCIE practice enquiry.

Practice enquiry: SCIE primary research, involving survey, qualitative and/or case study methods, to draw out knowledge about a topic from practice environments.

SES: Single equality scheme

Preface: The context for this revised edition of SCIE's systematic review guidance

When SCIE was established, its initial tasks included the development of systematic review guidance appropriate for social care. SCIE's reports indicate the kinds of knowledge that should be included (Pawson, Boaz et al. 2003), a general overview of the role of systematic reviews in improving social care (Macdonald 2003)and ways of synthesising studies whose findings are mainly qualitative (Fisher, Qureshi et al. 2006). More recently, SCIE has extended its methodological guidance to cover practice enquiries (Rutter 2009) and systematic mapping (Clapton, Rutter et al. 2009).

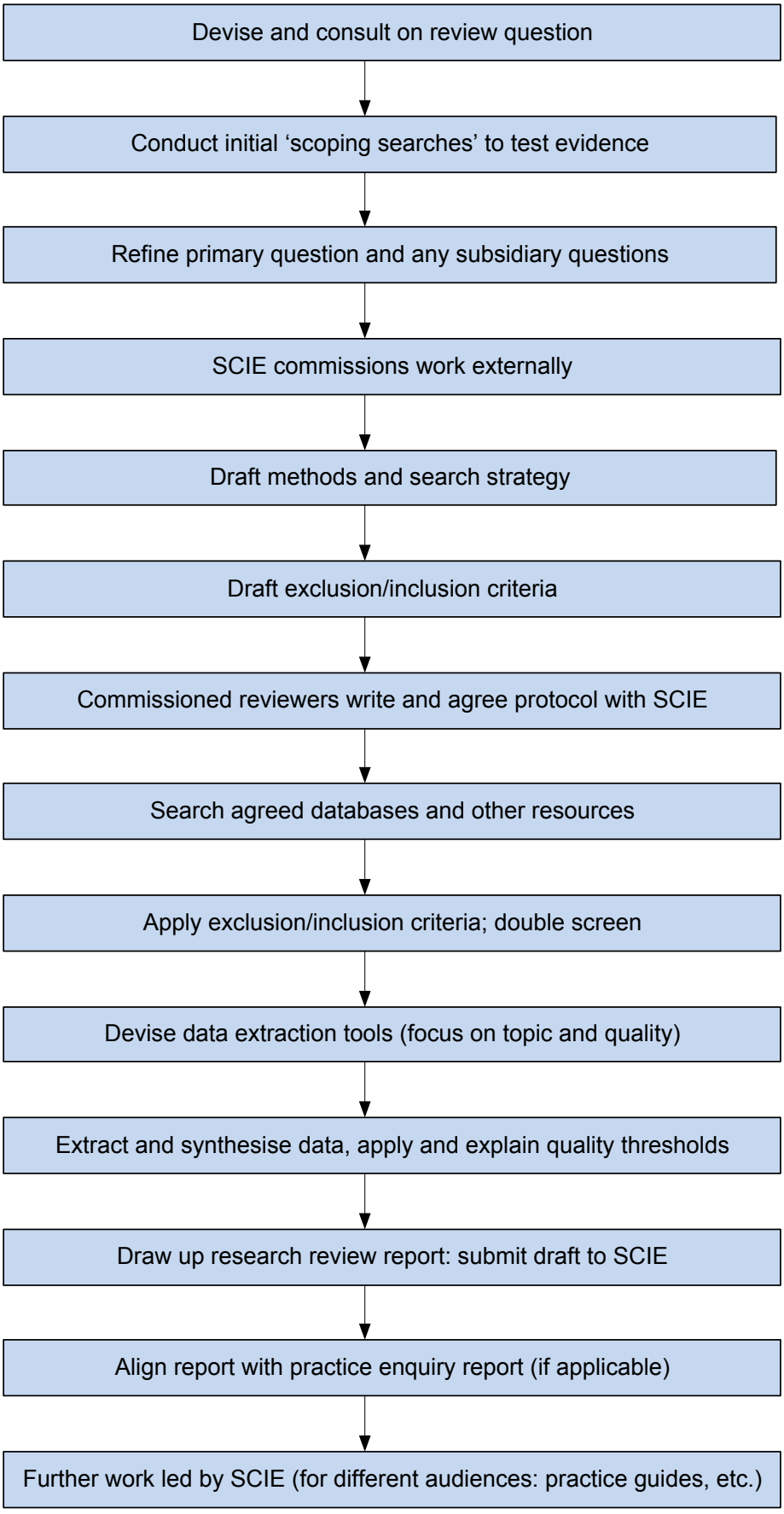
In 2002, SCIE established basic guidance to govern the conduct of systematic reviews it commissioned. These were further developed and codified for the 2006 publication of *The conduct of systematic research reviews for SCIE knowledge reviews* (Coren and Fisher 2006). This present publication updates and refreshes the 2006 publication, taking into account SCIE's emerging interest and competence in economic evaluation and qualitative synthesis. We also acknowledge the increasing emphasis on shaping systematic reviews to the policy and practice purposes and timeframes of their users, and feel it is timely to restate both the quality standards and flexibilities within SCIE's methodological approach.

The research review itself may be one output of a broader preliminary piece of work: a SCIE systematic map from which review questions and evidence can be derived. A SCIE 'knowledge' review (a term unique to SCIE) also traditionally comprises two main elements: a research review of the knowledge available through research, and a practice enquiry to explore stakeholder knowledge and practice not reported in the literature. As part of its commitment to transparency and rigour, SCIE is developing a comprehensive description of all its processes and products. This guidance focuses on the research review component of the knowledge review, and on the reporting of processes and findings.

Where evidence is sufficiently sound, research or knowledge reviews are used as the basis for practice or resource guides. Once the knowledge review has reported, SCIE staff will consider the application of its findings to people involved in policy, practice and the use of services, and if and how the review can best be adapted for, and disseminated to, these different types of people. This may well entail translation of the review findings into different formats for different purposes and audiences. This stage is carried out in consultation with SCIE and external practice experts, and is not detailed in this guidance.

This current document updates the 2006 guidelines, reflecting the need to be more precise about SCIE's expectations, and to build on the work of our academic colleagues by incorporating changing standards into systematic review methods. It also reflects the single equality scheme (SES) adopted by SCIE in 2009 to ensure that equality and diversity issues are addressed in all aspects of our work. The authors welcome feedback on the contents, and suggestions for improvement in later versions.

Flowchart of systematic review process



Introduction

1. A SCIE knowledge review normally comprises two elements: a research review of available knowledge and a practice enquiry. The practice enquiry seeks examples of practice in the relevant area of work, drawn from a survey of practice agencies, service users and carers and other stakeholders. Some knowledge reviews may be conducted without an accompanying exploration of practice.

2. This guidance focuses specifically on the research review component of knowledge reviews, which should be conducted systematically. Separate guidance is available on the conduct of practice enquiries (Rutter 2009). In this document, the practice enquiry is considered in terms of its relationship with the research review, and the dialogue between the two processes.

3. This guidance updates the guidelines produced in 2006. It sets out our expectations more precisely, and harmonises more closely with the needs and values of SCIE's policy, practice and user stakeholders. It will also incorporate SCIE's new interest in exploring the economic consequences of different types of social care provision, and consider the implications of the wider acceptance of the value of qualitative studies, and qualitative synthesis, within the review community. A new detailed report structure for reviews and protocols is announced in this guidance (see Paragraphs 242-305)

4. In this publication, the terms research review (a SCIE term) and systematic review (a general term) are synonymous and used interchangeably. These terms are sometimes shortened to 'review'. Please note that where the term review appears, it refers to systematic reviews and not to any other type of non-systematic review. Where we refer to non-systematic reviews in this guidance, we use the term 'non-systematic reviews'.

Aim of this update

5. The aims of this document are to ensure:

- greater consistency in the conduct of SCIE knowledge reviews
- that the guidance reflects the latest methodological developments and good practice, both within SCIE and elsewhere in the systematic review community
- greater transparency and replicability of reviews
- more consistent presentation of knowledge reviews, related products and different formats for different audiences.

6. Our view is, however, that the guidance should be seen as a living document - it should develop as methods develop more generally. We will update the guidance regularly as required, and plan a major review in 2012-2013.

Diversity and equality

7. SCIE aims to become a leading organisation in the promotion of equality and diversity and to contribute to social justice through its work. In 2009 SCIE adopted a single equality scheme (SES) to ensure that we address equality and diversity issues in all aspects of our work. The SES requires all SCIE's products and services to address and integrate knowledge of equality and diversity; to be inclusive in terms of ethnicity, gender, disability, sexual orientation, age, caring responsibilities, religion, belief or faith; and to promote human rights. SCIE will carry out an equality impact assessment prior to commissioning a review to identify any particular equality and diversity issues of relevance to the review. A further equality impact assessment will be carried out on completion of the review to assess how it has addressed these issues.

8. Reviews should incorporate the perspectives of user and carer groups and people from black and minority ethnic communities, and include other diversity issues and perspectives as far as possible. Research literature that covers these views and topics may not be available. It is therefore expected that searches will include grey literature and user testimony to capture these perspectives. Where available evidence does not demonstrate this coverage, the review report should highlight these omissions as this is an important issue.

9. Service users and carers, the end users of most social care services, may come from marginalised, under-represented or stigmatised groups. It is therefore important that steps are taken to facilitate their involvement (see relevant sections and appendices). Review teams should therefore provide evidence that they have incorporated the issues and perspectives of people covered by the SES, not only in search strategies, but wherever possible by including representation from minority communities within the review team or advisory groups. This is especially important when the review topic is considered particularly pertinent to people from these communities, as in the review of advocacy services for Afro-Caribbean men with mental health issues (Newbigging, McKeown et al. 2007). In such a case, one quality criterion for the appraisal of the quality of the individual studies may be the involvement of people of the relevant background in the design and execution of the study. Such involvement has the potential to expose stereotypical thinking and improve the relevance and generalisability of research findings.

Evidence in systematic research reviews: the SCIE approach

10. Systematic review methods can be applied to any type of question. Indeed it is SCIE's position that, in most cases, transparent and replicable methodology should be applied to all forms of literature review in the interests of quality and reliability (Gough and Elbourne 2002).

11. In common with other fields in the social sciences, there is no current consensus in social care as to what constitutes evidence, how it should be gathered and synthesised or how quality should be appraised. See (Rutter Forthcoming) for a

discussion of these issues. This guidance therefore takes a pragmatic position on these issues, guided by the overall purpose of reviews, which is to support the information needs of decision-makers by gathering, describing and synthesising relevant evidence using transparent and systematic methods.

12. For questions related to policy and practice, the position in this guidance is that empirical research, whether qualitative or quantitative in design, provides the best evidence of effectiveness of particular interventions or approaches. Within the term empirical research, SCIE includes the systematically collected views and experiences of users and carers. Research that includes the views and experiences of users and carers allows an additional and vital perspective on how problems are defined, what helps and what hinders the effectiveness of services, and whether a service is acceptable and accessible: the most effective of services will fail if people do not use it. Where the views and experiences of users and carers are not available through research, other forms of user and carer testimony should be taken into account.

13. Where it is not possible for this testimony to be quality assessed (e.g. where user testimony has not been gathered as part of a research study), reviews should report this transparently.

14. Thus, the core of a SCIE systematic review is empirical research evidence and user and carer testimony.

15. Evidence may be informed by other knowledge such as theory and debate, which has a clear role in the development of interventions and approaches. Such information may be important background information to a review. The evidence on which review findings are based, however, should primarily be derived from empirical research, with key information incorporated from user and carer testimony, to ensure contribution on the impact of interventions from a user and carer perspective.

16. Where possible, writers of reviews should aim to include information on harm as well as benefit arising from interventions reviewed. Examining such material is particularly important where study findings are contradictory or interventions are costly, but reporting is generally hampered by an acknowledged bias in publications toward those research papers which show positive findings (Dickersin 1997).

What is a research review?

Overview

17. The aim of conducting a research review is to gather together systematically a comprehensive, transparent and replicable review of all the knowledge in a particular area, including the five knowledge sources identified in social care (Pawson, Boaz et al. 2003) (see Paragraphs 36-43). SCIE research reviews are usually intended to evaluate the effectiveness of interventions, but they may also address other questions including how and why interventions work. Some reviews will focus on implementation questions and others on broader questions of policy and practice, including cost (Paragraph 44). Knowledge reviews are focused on a precise question that is informed by the concerns of the various stakeholders in a review, and refined and explicated in a protocol (see Paragraphs 49-82).

18. There are many approaches to such reviews, and there has been much recent development, including 'realist synthesis'. (Pawson, Greenhalgh et al. 2005). This guidance does not currently cover all such types of reviews. If review teams commissioned by SCIE are interested in working with this or other methods not specifically included in this guidance, this should be discussed and agreed with the SCIE project manager at an early stage.

19. The 'systematic' component of the term *systematic review* refers to transparent, rigorous and comprehensive methodology, as described in detail in this guidance. Contrary to popular misunderstanding, the use of the term is not dependent on the types of data or study designs included in reviews, although methods do vary, depending on the study designs to be included. SCIE reviews are all conducted systematically, using transparent, replicable methods.

20. The term 'systematic review' has a common understanding in research. According to the National Institute for Health & Clinical Excellence (NICE) 'A systematic review can be defined as a summary of the literature that uses explicit and systematic methods to identify, appraise and summarise the literature according to predetermined criteria. If this description *(of the methods)* is not present, it is not possible to make a thorough evaluation of the quality of the review.' (National Institute for Health & Clinical Excellence 2009), page 200).

21. Much of the development to date in systematic review methodology has taken place in the health care arena, where controlled studies aimed at establishing the effectiveness of health interventions are sometimes the only studies included in reviews. This guidance sometimes draws on examples and references from systematic reviews in healthcare, where they have a bearing on relevant methods.

22. However, social care research has historically been the 'poor relation' of health services research, and both the scope and quality of the social care evidence base is inferior to that found in health (Marsh and Fisher 2005). Systematic reviews of social care topics are therefore rarer than in health, and may be breaking new ground methodologically. It is therefore important that review authors disseminate and share

these developments in order that the field may progress. Additionally, SCIE will actively gather and disseminate evidence of such developments, and expect review teams to assist with this process, and add to it through their own dissemination opportunities in publications and conference presentations.

How systematic reviews relate to other SCIE products

23. Before delving deeper into the topic of SCIE systematic reviews, it is important to distinguish them from other SCIE products with which they share some of the processes and building blocks.

Systematic mapping

24. Systematic mapping is a process developed to map out the existing literature on a particular topic. This process is based on one or more clear search questions, inclusion and exclusion criteria and extensive searching: but the map varies from the systematic review in the breadth of the topic area and questions, and the limits of data extracted.

25. A map question is deliberately broad: 'What is known about the extent, identification and management of depression among BME older people, and the accessibility, acceptability and effectiveness of social care provision?' is a representative map question (Sharif, Brown et al. 2008). Data extraction from identified map resources entails only a keywording process that describes the studies and their main methods, but does not attempt a full data extraction and quality assessment, or a synthesis of findings from the evidence. SCIE mapping techniques (Clapton, Rutter et al. 2009) build on methodological developments at the EPPI-Centre (Gough, Kiwan et al. 2003). Among other aims, systematic mapping may help to identify which questions are answerable from the available evidence, so will help to refine review questions and determine whether the commissioning of one or more reviews will be worthwhile.

26. In some cases, reviews will be based on an existing systematic map of the literature, and this may well be produced in-house by SCIE. If so, there will be implications for the review teams. First, the map will clarify which aspects of a question may be answered in a review, and where there are gaps in the primary research. Second, there will not be a need for review teams to engage in extensive searching, as most searches will be complete: some updating may be needed, but search strategies piloted for the map, and databases compiled, will be made available to the reviewers. Third, SCIE may specify how the data from the systematic map should be used in any particular commission. If a team to conduct the review can be identified at an early stage, it is desirable that it will have been involved in the mapping process. In some cases, it may be that the evidence identified through mapping is found to be inadequate to support a full systematic review. All of these aspects of the map process and results may impact on the financial aspects of review commissions.

27. A review founded upon an existing map will critically review the search strategy for the map, updating and extending it. The map may accommodate several review questions within a topic area, enabling the research studies and findings of each to be set in the context of the wider literature. Additional guidance that addresses the methodology for SCIE maps more specifically, and the implications for reviews where a systematic map has been produced by SCIE, is now available (Clapton, Rutter et al. 2009).

SCIE research briefings

28. A SCIE research briefing is a structured account of the research on a given topic in social care, based on a systematic but limited search of the literature for key evidence. Its purpose is to give an overview of the research evidence to people who provide and use social care services. Papers are included in research briefings because they appear highly relevant to the topic area, are frequently cited by other authors and appear to be competent as evidence or background. However, because we do not thoroughly assess the quality of the research identified, or undertake a systematic synthesis, a research briefing acts as a signpost for further reading, rather than as a definitive account of 'what works'.

29. A research briefing starts out on a similar pathway to a review, as they both share the need for a systematic search strategy, inclusion criteria and transparent reporting. However, the briefing is produced more rapidly, may interrogate fewer data sources, and does not entail either full quality assurance of included papers, or a full synthesis of findings. Guidelines on research briefings can be found at http://www.scie.org.uk/publications/briefings/files/researchbriefingguidance2009.pdf.

SCIE practice enquiries

30. Practice enquiries are the third SCIE product that has a close relationship with a SCIE systematic research review. A practice enquiry is a 'made to order' structured or semi-structured original inquiry into aspects of current practice in health and social care. It can include research evidence, but is primarily designed to investigate themes and individual and organisational practices in the field. Although they may be standalone products, many practice enquiries are commissioned to complement the research review element of a knowledge review, and the aims and design, as well as the nature of the participants, will be devised with the review question in mind.

31. A SCIE practice enquiry may aim to:

- document a particular field of practice, although the view may only be partial
- capture the range or characteristics of different practice and progress in relation to a specific topic area or research question
- consult with a range of stakeholders, or with one or more types of stakeholders (e.g. practitioners) on their experience and/or views of particular topic areas or research questions

- complement a literature review by:
  - > focusing on gaps in what the literature describes
  - > providing examples of practice which may not yet (if ever) be written up
  - > illustrating findings from the literature.
- harvest self-reports of innovative, interesting or representative practice
- identify the presence – or absence – of particular services or interventions. It may then be part of a practice enquiry to follow these up with more detailed enquiry, such as case studies.

32. Further remarks on the practice enquiry and its relationship to the research review component of the knowledge review are to be found at Pargraphs 237–241, and in the section on the knowledge review report (Paragraph 242 onward). Guidelines for conducting a practice enquiry (Rutter 2009) can be found at http://www.scie.org.uk/publications/researchresources/rr04.asp.

Forming a review team

33. Many different types of expertise are needed to complete a SCIE systematic research review. A review team or its advisory group should therefore include the following: users and carers of the service in question; other subject experts in the topic; managers, practitioners and policy makers; people with understanding of equality, diversity and SCIE's SES; methodological expert(s) with experience of systematic reviews; and information or search specialist(s) with expertise in searching electronic bibliographic databases.

34. The commissioning document will clarify whether commissionees, or SCIE itself, will take responsibility for convening such a group. This may depend on whether the review is part of a wider programme of work for which an advisory group has already been engaged.

35. If there is no existing map, SCIE will in most instances provide early scoping reports on the topic area in question. The review team may wish to supplement these by undertaking some preliminary work to contextualise the research question. This enables greater potential for steering the project at the interim stage, establishes fruitful connections with academic and policy colleagues, and makes good use of the expert knowledge within the team and its associates. The commissioned team may well be selected for their established expertise in the field of the review, in which case they may already have undertaken some scoping and searching work.

What is included? Five types of knowledge in social care

36. A systematic review includes any knowledge that exists in answer to a particular question. The aim is comprehensive coverage. In practice, explicit and comprehensive electronic and manual searches are undertaken to find relevant research literature, user testimony, economic data and other sources of material to be included in the review.

37. It is important that the five types of knowledge identified in social care (Pawson, Boaz et al. 2003) are incorporated into knowledge reviews. Below is a list of these knowledge types and possible ways they can be incorporated into knowledge reviews. Most of the literature included in a research review is likely to be research evidence, and there are systematic approaches to the review of such evidence. However, such research evidence may uncover or expand on any of the following types of knowledge, depending on the focus and participants in the study.

Policy knowledge

38. Policy guidance, legislation and other policy information should be incorporated into the background section of a review report, to ensure that the appropriate context for the review topic is identified and described.

Organisational knowledge

39. Any relevant information from providers and regulatory bodies would be summarised in the background section. Where services have been evaluated, information from specific organisations may be included in the research review. This might include information on barriers and facilitators to improving the intervention or service, and other organisational information in relation to working practices or service delivery, where these have an impact on the review question. It would be likely in most cases that the practice enquiry element of the knowledge review would capture specific perspectives from organisational experience.

Practitioner knowledge

40. Practitioners may be involved either as part of the team conducting the review or as members of advisory or stakeholder groups. Additionally, practitioner knowledge might be captured in the research review through the incorporation of any relevant research or other published material. This knowledge might include information on barriers and facilitators to implementing or improving an intervention or service, and other practitioner-level information in relation to working practices that have an impact on the review question. Practice enquiries also capture practitioner knowledge and experience, and this is a key area where practitioner views are included in SCIE knowledge reviews.

User and carer knowledge

41. Service users and carers should be involved, ideally as part of the team conducting the review, or as members of advisory or stakeholder groups. Additionally, as specified in the section on searching (Paragraph 137 onward), specific attempts should be made to locate sources of user testimony in searches. Similarly, such knowledge might be captured in searches through the incorporation of any research or other published material that presents user views or experiences.

42. The purpose of collecting this data is always to ensure that user and carer views are represented so that their perspectives on access, impact and utility of the intervention or the processes being reviewed are included in the evidence base.

Research knowledge

43. Research knowledge is primarily captured in knowledge reviews through searching databases of published and unpublished research studies, and the incorporation of this in the research review component of the knowledge review.

Knowledge relating to cost of social care interventions and processes

44. SCIE has now developed an approach to the incorporation of economic evaluation and material analysing the resourcing of social care activities and interventions. The quality and quantity of economic evaluations in the social care sector are known to be generally lacking (Sefton, Byford et al. 2002). The implication for SCIE's work is that despite revising our searches to include economic studies, a systematic research review is likely to contain very few full or even partial economic evaluations. Nevertheless it may still possible to include an economic perspective in the systematic review by identifying data about the resources required to implement an intervention. This data can be extracted from effectiveness studies that describe, measure or value resource use (costs). The inclusion of such material has implications for the searching, quality appraisal and data extraction aspects of reviewing, and will be touched on in each of these sections. Given the importance of cost implications (e.g. to our policy customers), we have included some material specifically on our piloting of methods in a separate section (see Paragraphs 83-119).

Transparency and replicability

45. All parties involved in a particular area have their own agendas and intentions in contributing to the literature, and to the review process. Transparency in the reporting of methodology ensures that the review is as objective as possible, and that the nature of any influence or bias operating on the perspectives in a review is made explicit. Clarity about the way in which the research question was operationalised, and what evidence was included and excluded, will also impact on

the generalisability of the findings – that is, to which groups of people, and in what circumstances, the findings are likely to apply.

46. It should be possible for anyone else to conduct the same review and come to very similar conclusions – hence the review is broadly replicable, although a later review would probably draw on additional recent publications which may alter the findings. To this end, methods should be described in such a way that the process is very clear to the reader. Methods should be published as part of the review, though that which is of minority or technical interest, for example search strategies, should be placed in appendices, which are outside the word count of the document.

47. As with all research, a key aspect of replicability is the protocol (see Paragraphs 49–82), which sets out explicitly in advance the aims, methods and processes of the review. The protocol should ensure that the review is conducted systematically. Central to this is the aim that the review answers the question(s) set initially, rather than merely synthesising findings emerging from the included papers. The protocol document also requires and sustains shared understanding of the systematic procedure by all team members, and it should not be changed without agreement. One member of the team should be charged with maintaining the correct version and consulting and reporting on any proposed amendments.

48. In line with this transparency, the limitations of any team's perspectives should be noted in the review discussion section. This should include the presence or absence of user, carer and practitioner views within the review team.

Review protocol

Overview

49. During the early stages of the work, a review protocol will be developed. This is the account of the process to be undertaken to produce the research review. There are two primary purposes of the protocol. The first is to ensure a systematic approach. The second is to improve transparency and to ensure that the approach to the review is likely to answer the question in an appropriately rigorous way.

50. The protocol should be based on the commissioning and scoping documents set out by SCIE. The commission will specify the timescale for agreeing the protocol with SCIE, which will normally be within six weeks of the start of the commission. SCIE project managers should be mindful of these timescales when reviewing protocols, as delays could affect the progress of the commissioned review. Protocols should be no more than 4,000 words, with no more than 1,500 of these devoted to background discussion. The text of a protocol, transferred into the past tense, should be included in the final review report.

51. The protocol will form the basis of the methods section of the final report. It will also provide background to set the project in context.

52. Protocols will be subject to quality assurance and may need to be redrafted following this input. The process of drawing up a protocol will promote a shared understanding of the methods (e.g. within review team; between review team and SCIE commissioners) and should enable any difficulties or misunderstandings to be resolved at an early stage.

53. SCIE will ordinarily approach two peer reviewers with appropriate expertise to appraise and advise on the protocol, as part of the quality assurance process. Reviewers are likely to be people with expertise or experience in methodological, policy or practice matters. Service users may also contribute to reviews of protocols.

54. The structure for a protocol should use the headings described below (Paragraphs 55–82). In this section of the guidance, there is only a brief reference in most cases to what is required at protocol stage. For fuller understanding of all the issues in each area, please see the relevant sections under ‘Detailed review processes’ (Paragraph 120 onwards).

List of abbreviations

55. All abbreviations used in the text of the protocol should be clarified: e.g. National Society for the Prevention of Cruelty to Children (NSPCC). As the review progresses, any new abbreviations that arise should be added to this section.

Potential conflicts of interest

56. Anyone commissioned to contribute to the review or serving in an advisory capacity should declare any previous or ongoing involvement in the topic in question. Examples of such involvement might be if a reviewer has written on the topic, developed programmes in the area, engaged in any relevant consultancies or experienced social care services relevant to the topic. Familiarity with the field is generally advantageous to the review: the purpose of reporting other activities is to remind the team and the reader that the findings of the review must be based on the evidence included, without reference to any individual's beliefs or previous research findings.

Background

57. This section should set out the background to the topic including any legislative, policy-specific, regulatory or performance assessment background context to the review, and include coverage of the relevant policy and organisational documents e.g. Audit Commission reports. In addition, any uncertainties in relation to the effectiveness or acceptability (to users/carers/minority groups/practitioners/ other stakeholders) of services/interventions should be discussed. This should not be a comprehensive overview of the field, or lengthy: it is an opportunity to set the scene. If there are debates in the field about the theory or conceptual background of the topic or intervention, these should be identified briefly here. It should be noted here if this work contributes to a broader programme of work commissioned by SCIE, or if the commission is joint (e.g. with NICE).

58. The background section of protocols/reviews should briefly summarise the state of research knowledge to date in relation to the review question. Where previous systematic reviews have been conducted on related questions, these should be summarised (Young and Horton 2005); (Clarke 2004). The background section should be no more than 1,500 words in length.

59. Scoping work by SCIE should have identified any recently published systematic reviews on the topic. However, if reviews are found that answer the same or a very similar question to that posed by the current review, further work may not be necessary. If this occurs it should be discussed with SCIE as soon as possible.

Aims

60. The aims of the review should be consistent with the background section, including gaps in the evidence identified there. This section should set out in more detail the questions the review is seeking to answer. There should normally be no more than five main objectives for the review.

Criteria for inclusion of studies in the review

61. Inclusion and exclusion criteria underpin the whole review (see Paragraphs 131–136). They should arise directly from the question and should be explicitly stated in the protocol and in subsequent reports of the review. This is crucial as it helps readers to understand the process of identifying studies to be included, and to consider the likely applicability of the review for their purposes. If the review is based on an existing map, it is helpful to describe and explain where and why criteria differ for the map and for the review.

62. It is helpful to present the exclusion criteria in table form, with explanatory notes. An example is given at Appendix 2. Criteria may need to be subject to revision or clarification during the searching and screening stages. For this reason, it is important that the criteria, and ideally the protocol as a whole, is in the custody of one person, who maintains and annotates versions as they develop, and consults with and informs the team on any changes or clarifications.

Methods of the review

63. All the sections briefly described below (Paragraphs 64–78) should be addressed in the protocol outline of the methods. Subsequent sections give more detail on expectations for the key aspects of the methods used in a SCIE research review.

Searching

64. The search strategy is based on what the search is looking for (inclusion criteria) and not looking for (exclusion criteria), and lays out the databases and other sources where potential studies for inclusion will be sought (see Appendix 6). For the protocol it is sufficient to describe the planned search strategy in general terms, detailing the databases to be searched, a general plan in relation to search terms, any restrictions of the search (e.g. language, dates), and other planned searching such as handsearching, citation tracking, websites and personal contacts with authors. The planned strategy for locating the literature and recommendations of experts in the field, including members of any stakeholder group (see Paragraphs 12–130) should also be specified.

Screening of material

65. Reviewers should state in the protocol the proposed methods for applying the inclusion and exclusion criteria to retrieved studies (see Paragraphs 131–136). This process is also known as screening, and would normally take place online, using the retrieved material from the searches stored in a database. Reviewers look at the titles and abstracts (if these are available) downloaded from the searches to consider whether they appear to meet inclusion criteria. Full texts of papers that do appear to meet criteria for the review are then retrieved from libraries. In the protocol it is important to state how many reviewers will view each title/abstract, and how

consistency between reviewers will be established.

66. SCIE requires that the level of agreement between those involved in screening is recorded and presented in the review. The protocol should state how any differences of opinion will be resolved (for example by moderation by another reviewer or by consensus).

67. Screening for inclusion usually takes place in two phases, as decisions made on title and abstract only, may be overturned when the full text is available. The protocol should refer to this second level of screening.

Data extraction and keywording

68. Data extraction is a process used to describe and categorise the studies included in a review by identifying aspects of their contents (topic, design, method, population of interest, etc.). The descriptive categories chosen because they are useful to the review may be described, summarised and recorded as keywords, and the process may then be called keywording. Data extraction is described in detail in Paragraphs 167–180. It can only be carried out on full texts, as abstracts rarely include sufficient detail. In consultation with SCIE and other stakeholders, teams should devise a tool – a tabular checklist of options within each category – that is review-specific, in which there should ideally be no more than 15–20 categories which are of importance to the review topic. These categories, and the options within them, might relate, for example, to a sub-topic within the review question, the type of stakeholder views reported in the paper, or aspects of the methodological quality.

69. If the included review material is stored on a bibliographic database (such as Endnote, Reference Manager, etc.), the coding or keywording can be stored in fields for each item, and accessed to support analysis, synthesis and report writing. Coding the full text papers using these keywording tools will enable the review team to take stock of the material, and arrive at some sense of how useful it will be in addressing the topics within the review question(s). The database software will allow retrieval of all sources that include one or a combination of keywords, and these are a useful aid to organising and analysing material, and reporting progress, at the interim report stage. For examples of keywording tools, see Appendices 4 and 8. The process of data extraction should be briefly outlined in the protocol, as the finalisation of a data extraction format may not be possible until a later date, when potential tools have been piloted.

70. Where conceptual or theoretical - rather than research-based - material is used in the final report, it will not have been subject to the data extraction and quality assessment processes applied to research studies. Summaries of such material should be reported separately from the synthesis of research studies that have been subject to in-depth review, using a table format if appropriate.

Quality appraisal of studies

71. Quality appraisal of studies is a type of data extraction. The purpose of the exercise is to consider the validity, reliability and generalisability of each study's

findings, by examining the methods that have been used in the study. In healthcare, reviews of the effectiveness (of a drug or treatment or process) prioritise controlled studies, preferably with random allocation of participants to the intervention or control groups, and these may be the only studies included in a review. The evidence base in social care is less well developed, and a SCIE review will usually need to include a range of different designs, and will purposively include qualitative studies that report service user, carer and practitioner views. This does not mean that reviewers should ignore methodological aspects of qualitative papers: thresholds relating to methodology may be set according to the numbers of people involved (sample size), the length of follow-up (sustainability) and other criteria. This aspect of the protocol will need to be informed by the writer's preliminary understanding of the available research literature. Further discussion of quality appraisal of review material is included in Paragraphs 181–212. The protocol should include an outline of proposed methods for quality appraisal of studies.

72. Reviews will frequently provide a summary rating of the quality of each study, referred to as weighting. This is a shorthand means of synthesising quality, lack of bias and reliability – that is, the authority of the study and its findings. Reviews may summarise their findings by referring to the weight of the available evidence, or the characteristics of key pieces of evidence, by including one or more evidence statements. For example: 'the conclusion that looked after children benefit from intervention X is supported by two highly-rated controlled studies'. There are competing methods for attaching authority to research studies, and the protocol should describe how this will be done.

Quality assurance of processes

73. All aspects of the process of compiling the review should involve quality assurance. This is particularly important in areas, such as screening for inclusion, data extraction and quality appraisal of studies, where reviewers make judgements about material to be included. The protocol should state how many reviewers will independently undertake these exercises, and how inconsistencies will be addressed. Other strategies for improving quality, such as peer review of search strategies, should also be considered in the protocol.

Data management and synthesis

74. This section of the protocol should outline how data extracted from the studies will be synthesised in the review. There may be a need for different sections discussing the synthesis of different types of data.

75. A quantitative (statistical) meta-analysis may be used to synthesise numerical data. However, it is likely that many reviews in the social sciences and social care (and even healthcare) will contain data that cannot be summarised using this method. It is therefore probable that some narrative synthesis will be necessary. Where data are qualitative, thematic analysis is useful, and a likely framework for organising the report, linked to the review question(s), should be considered in advance. It may be necessary to amend this framework following the protocol submission, once the reviewers are more familiar with the literature. However, it remains important to have some *a priori* (initial) consideration of what might be

useful themes for analysis in any particular topic. General commentary on methods of synthesis is provided in Paragraphs 214–236 (though readers should be aware that this is a complex topic with which SCIE commissionees would need to be familiar).

User/stakeholder involvement

76. Protocols should outline plans to involve stakeholders in the review, together with some detail as to the role stakeholders will play in the process. These plans should follow the guidance in the main section on this topic (see Paragraphs 120–130) (supplemented by Appendix 5). Ideally, all stakeholder groups should be involved in planning, executing and advising on the process, including service users and carers, practitioners, policy makers and researchers. Where possible, the composition of these groups should reflect the ethnic and cultural background of service-user groups, and involvement of users and carers from black and minority ethnic groups is strongly encouraged.

77. In particular it is important to outline at the protocol stage the ways in which the reviewers plan to involve users of the specific services that are the focus of the review, and any plans to support those users to participate in this process (e.g. practical support with mobility, childcare and transport, and support to access review material).

78. It is for the review team to decide whether to use an advisory group. If an advisory group is used, the team should detail in the protocol the composition and the frequency of contact, whether this contact is face to face or by email, together with the specific role of the group at which stages of the review.

Timetable and interim report

79. The protocol should map out the proposed timeline for major stages of the review. SCIE needs to be aware of milestones in order to track the progress of the review, which may be linked to other stages of work.

80. In addition to a protocol at six weeks, an interim report (for a full review) is required about a third of the way through the commission. This interim report should report on the search, screening and coding stage and identify decisions made in a flowchart style, similar to the figure in Appendix 3, adapted from an EPPI-Centre commission). Shortly after the submission of the interim report, a meeting between the SCIE project manager and the commissionees should decide on the best way to take the review forward in the light of the information gathered so far.

81. Where a stakeholder or advisory group has been established, it is good practice to consult with it prior to meeting with SCIE, to enable stakeholder perspectives to be brought to bear on decisions about the next steps.

82. If a practice enquiry is being separately commissioned as part of the knowledge review, the research review team should feed in ideas for ways forward on the practice enquiry, where appropriate.

Economic evaluation

Background to inclusion of economic data in SCIE reviews

83. Following consultation with health and welfare economists, SCIE took a policy decision to seek economic evaluations from specialised databases, and incorporate material on costs and cost effectiveness into systematic maps and research reviews. The quality and quantity of economic evaluations in the social care sector are known to be generally lacking (Sefton, Byford et al. 2002). The implication for SCIE's work is that despite our revised searching guidelines (see Paragraph 137–166 below), a systematic review is likely to contain very few full, or even partial, economic evaluations. Nevertheless, it is still possible to include an economic perspective in the systematic review by identifying data about the resources required to implement an intervention. This data can potentially be extracted from effectiveness studies that describe, measure or value resource use.

84. The aim of SCIE's new strand of work is to identify studies that report cost effectiveness or which provide the following information:

- the costs of providing services generally
- the costs of particular intervention(s)
- the costs incurred by users and carers due to their experience of health problems or disability. These include out of pocket expenses and foregone earnings – meaning the income foregone by users or by carers due to their incapacity or unavailability to work
- the amount of time spent providing unpaid care by family members or friends.

The importance of identifying the costs incurred by service users and their families is explained in SCIE's statement on economic evaluation in social care (Francis forthcoming (2010)).

It is specifically economic analysis that is being looked for, rather than any information on individual income or benefit entitlement.

Type of economic studies in social care

85. Economics studies can be classified into three broad categories: full economic evaluations, partial economic evaluations and (single) effectiveness studies.

86. All types of full economic evaluation compare the costs (resource use) associated with one or more alternative courses of action with their consequences (effects). All types value resources in the same way (i.e. by applying unit costs to measured units of resource use), but differ primarily in the way they itemise and

value effects. These differences reflect the different aims and viewpoints of different decision problems (or economic questions).

87. Full economic evaluation has been defined as the comparative analysis of alternative courses of action in terms of both their costs (resource use) and consequences (effectiveness) (Drummond, Sculpher et al. 2005). Full economic evaluation studies aim to clarify, quantify, and value the resource inputs and consequences of all relevant alternative courses of action. Several types of studies fall into the category of 'full economic evaluation': cost benefit analysis (CBA); costs effectiveness analysis (CEA); and cost utility analysis (CUA). They differ primarily in the way they itemise and value effects, and the differences between them reflect the different aims and viewpoints of the different economic questions they seek to answer (Shemilt I, Mugford M et al. 2008).

88. Partial economic evaluations are economic analyses which either focus solely on costs and/or resource use but do not relate costs to consequences; or which focus on both costs and consequence but do not involve a comparison between alternative interventions. Types of studies considered to be partial economic evaluations include: cost analysis, cost-comparison studies, cost-consequences analysis and cost-outcome descriptions.

89. Compared with full and partial economic evaluations, effectiveness studies contain more limited information relating to the description, measurement or valuation of resource use associated with interventions. Whilst effectiveness studies do not constitute economic evaluations they may still nevertheless contribute useful evidence to an understanding of economic aspects of services or interventions.

90. Effectiveness studies are particularly important in the context of SCIE's work due to the dearth of full and partial economic evaluations from which to derive cost effectiveness information about social care interventions. Even without evidence from economic evaluations it is possible to develop an understanding of economic aspects of a service or intervention by gleaning resource use information from effectiveness studies. SCIE recommends that information about the resources required to deliver a service or intervention is extracted from single effectiveness studies, during synthesis, using the data extraction tool outlined in Appendix 9.

Searching for economic studies

91. SCIE now recommends that two additional databases are included in standard review searches:

> NHS EED (Economic Evaluation Database)
> freely available at: http://www.york.ac.uk/inst/crd/crddatabases.htm#NHSEED
> or via the Cochrane Library at:
> http://www.mrw.interscience.wiley.com/cochrane/cochrane_cleed_articles_fs.html
>
> EconLit
> accessible through university libraries or at http://www.econlit.org/

Using NHS EED and EconLit

92. SCIE carried out a small pilot in 2008, using a social care topic to test the two economics databases not previously used in SCIE systematic searching. The test topic was ‘mental health recovery and employment in adult day services’ and the databases were NHS Economic Evaluation Database (EED) and EconLit. Analysis of the results of iterative searching showed that familiarisation with NHS EED and EconLit is needed before including their use in systematic searching. Neither interface is ideal. The test exercise showed that some persistence is required to get the best out of searching the content. The functionality of both databases is described here, followed by an explanation of the limitations encountered and suggestions for how some of these can be mitigated.

93. The coverage of these databases partially overlaps the recommended social-welfare orientated databases (see Paragraphs 137–166 below). However, they do have different emphases on topics, and may use different terms. For example, in the mental health recovery map, which forms the background to the test search, a definition of recovery was used that was intended to empower service users. Economic evaluations tend not to take this perspective, and ‘reading between the lines’ is needed to include material from an alternative viewpoint. In mental health recovery and employment, employer-sponsored benefit programmes (which implicitly aim to help workers recover and get back to work) could also be relevant. This has implications for inclusion and exclusion criteria, so economic databases should be included at the scoping stage.

NHS EED

94. The NHS Economic Evaluation Database is produced by the Centre for Reviews and Dissemination, York (CRD). CRD states that the database, which is updated every month, contains 'over 7000 quality assessed economic evaluations', published from 1994 onwards. The database description is linked from www.crd.york.ac.uk/crdweb/ (choose, ‘help section’) and states:

> 'NHS EED aims to assist decision-makers by systematically identifying and describing economic evaluations, appraising their quality and highlighting their relative strengths and weaknesses... Economic evaluations in the scope of NHS EED are regarded as studies in which a comparison of two or more treatments or care alternatives is undertaken and in which both the costs and outcomes of the alternatives are examined. This includes cost-benefit analyses, cost-utility analyses, and cost-effectiveness analyses.'

If a study appears to be a full economic evaluation relevant to the NHS, it is passed to an abstractor for abstracting. Bibliographic details of costing studies, methodological papers and reviews of economic evaluations are also included in the database.

95. Each abstract describes the effectiveness information on which the economic

evidence is based, as well as providing a detailed breakdown of the key components of the economic evaluation. A critical commentary summarises the overall reliability and generalisability of the study, and presents any practical implications (for the NHS).

96. Studies are identified for inclusion in NHS EED through screening journals and the following bibliographic databases:

- MEDLINE (1995 onwards)
- CINAHL (1995 onwards)
- EMBASE (2002 onwards)
- PsycINFO (2006 onwards)

For further, detailed information, refer to the website (Paragraph 91) or the NHS EED handbook (CRD, 2007).

NHS EED functionality

97. NHS EED is freely available via the CRD interface at www.crd.york.ac.uk/crdweb/ or Cochrane Library (Wiley Interscience) www.thecochranelibrary.com
We have been advised that the Cochrane Library interface is updated less frequently than CRD's.

Search interface and support

98. CRD offers only a simple search interface. An alternative is to use advanced search on the Cochrane Library interface. However, export is more unreliable. Search history and combination of searches is possible in both interfaces. A login account can be created to save searches to the next session. Cochrane Library has a 'My Profile' option, but this does not seem to include saving searches.

99. The MeSH thesaurus can be explored and searched from both interfaces, to identify suitable search terms. The CRD interface has a help tag, whereas Cochrane Library has Search tips in the right hand column.

Using NHS EED

100. When NHS EED, colleagues should consider the following:

- NHS EED contains evaluations of clinical interventions, e.g. drug treatments, which are likely to be of low relevance in social welfare searches on topics such as mental health.

- The emphasis of the database coverage is neither social care nor service user orientated. Therefore alternative concepts may be needed to capture relevant material.
- Both the CRD and Cochrane Library interfaces are non-standard, and therefore present unfamiliar formats.
- The start date for coverage varies by source; coverage is likely to be less comprehensive before 2006.
- When assessing output volume, care must be taken on both interfaces to select the relevant tab, as output from other databases is displayed on the same page.
- It is important to note that the terms ‘economic’ and ‘evaluation’ cannot be used in NHS EED. This is because ‘rejected’ records contain the phrase ‘This is not an economic evaluation’.
- NHS EED contains ‘parked' records which have been judged by CRD not to be full economic evaluations – these have no abstract and so are difficult to assess for relevance.
- It is important to note that CRD ‘parked’ records may meet SCIE criteria for 'partial' economic evaluations. The parked records might also be single effectiveness studies from which resource use data could usefully be extracted at synthesis stage. In both cases, abstracts would have to be obtained and if found to be relevant, should be included in the scope.
- Abstracts can be obtained individually using Google Scholar, but this task is time intensive. When screening, there is a knock-on effect of increased requirement for full text to assess inclusion/exclusion.

EconLit

101. EconLit is available via Athens
www.uwe.ac.uk/library/resources/general/databases/titles/econlit.htm
UWE describe EconLit as:

> 'Coverage from 1969 of worldwide economic literature. Covers 620 journals, collected volumes, books, dissertations and working papers licensed from Cambridge University Press. Produced by the American Economic Association.' EBSCOhost’s information states that the database contains more than 1 million records.'

Search interface and support

102. Search history and a combination of searches are possible. In theory, searches can be saved for future sessions using My EBSCOhost (but when tested, this was not straightforward). Help is available via a small blue question mark icon. There does not appear to be a formal thesaurus but by clicking on 'Indexes' in the top toolbar, one can browse index keyword terms. Many search limits are available.

103. EconLit does not have a bulk export feature, which limits its usefulness for sensitive searches and selecting records for export can be a tedious, slow process. To export:

1. Add records to a Folder. At the bottom of the page, set the number of records displayed per page to 50 (default is 20) then at the top right click 'Add 1-50'.
2. This step has to be repeated if there are more than 50 records to export.
3. Then click on the Folder icon in the top toolbar, select all records, deselect 'Remove these items from folder after saving'.
4. Perform direct export to EndNote.

Using EconLit

104. In using EconLit, colleagues should consider the following:

- EconLit appears to have low relevance on social welfare issues. The emphasis of the database coverage is neither social care nor service user orientated. Therefore alternative concepts may be needed to capture relevant material.
- In the case of our test topic, research included in EconLit was difficult to assess for relevance using the mental health recovery inclusion criteria; much of the literature seems to be about modelling and theory rather than empirical evaluations.
- In practice, searches cannot be saved for future sessions.

Searching economic databases

105. NHS EED is a relatively small, health orientated database. Therefore most topic-specific searches will produce a volume of output that can be tackled by screening. EconLit, however, is a large database but has relatively little health and social care content. Therefore some trial and error is advised when testing search terms, as the output can be either very little or too large to screen. Alternative search approaches should be tried (e.g. broad and specific, controlled language and freetext). The overall approach to gathering literature should incorporate author

searching, reference harvesting, and citation searching.

106. The two databases contain a mixture of record types:

- Those which are found in social welfare databases and which take the perspective of social outcomes, such as gaining employment and mental health recovery;

- Those which are not found in social welfare databases and take the perspective of economic measurement and modelling first, such as costs of employee insurance programmes. These studies may be excluded by our normal exclusion criteria – e.g. mental health could be included in 'severe disabilities' but is not explicit in abstracts.

107. Users should investigate the full range of thesaurus/keyword index terms. To do this, browse the MeSH thesaurus for NHS EED and the indexes/keywords for EconLit. Using terms for specific interventions is more likely to identify economic literature than broad service headings. In the Recovery in Mental Health example (Paragraph 93), NHS EED MeSH terms were found for Employment, supported; Rehabilitation, vocational; Vocational education; Sheltered workshops; Occupational health services. No relevant MeSH terms were found for clubhouse, psychosocial rehabilitation, transitional …, individual placement, social enterprise, social firm. EconLit keyword index terms were found for vocational training, vocational education. There were no keywords for clubhouse, psychosocial (rehabilitation), individual placement, supported …, social, transitional, occupational health, employee assistance. No relevant EconLit keywords were found under psychiatric. Certain health and social care terms should not be used as they have a different meaning in the economic literature, e.g. 'depression' tends to retrieve items on economic depression.

108. A tailored strategic approach to searching and screening on particular topics must be devised. NHS EED and EconLit need to be searched at the scoping stage and extra effort is required to develop appropriate searches. Identifying studies from author details may be worthwhile in this area of searching.

109. In some cases, abstracts will not provide sufficient understanding of the study for screening against inclusion criteria, and full texts will need to be obtained. In/exclusion criteria should reflect the findings of early searches for economic material. It is worth assessing the quality of economic studies before data extraction (a reversal of the normal order), since extracting data from poorly designed studies could be a waste of time. The data extraction form developed as part of SCIE's work in this area is included in Appendix 8.

Quality appraisal (QA) and data extraction of economic studies in SCIE reviews

110. SCIE recommends that resource use data be extracted only from studies of high quality and relevance. This means data extraction will occur during analysis and

synthesis stage, *following* quality appraisal. The volume of studies qualifying for coding must therefore be limited to a manageable level and directly relevant to the service or intervention in question.

111. The quality of full and partial economic evaluations is in part predicated on the reliability of the outcome data they utilize. Therefore the first stage of quality assessment for full and partial economic evaluations (as in other studies: see Paragraph 181–213 below) involves assessing the risk of bias in the results of the effectiveness study on which the economic evaluation is based. The second stage involves an assessment of the methodological quality of the economic evaluation study, informed by a recognised checklist for economic evaluations.

112. SCIE recommends use of the *British medical journal (BMJ*) checklist (Drummond MF, Jefferson TO et al. 1996) to assess the quality of economic evaluations. The *BMJ* checklist, comprising 35 questions, interrogates the following broad aspects; study design, data collection and analysis and interpretation of results. It is reprinted in (Drummond, Sculpher et al. 2005), and also in Appendix 9 below.

113. Other checklists exist for the appraisal of economic evaluations, for example the Quality of Health Economics (QHES) scale. The *BMJ* list is preferred for SCIE's work because unlike QHES, by using sub sets of the whole list it can be applied to partial as well as to full economic evaluations. QHES is only suitable for use with full economic evaluations which is problematic in the context of SCIE's work because of the dearth of full economic evaluations in the social care field. However, commissionees may wish to make a case for the use of their preferred quality checklist.

114. There are two established 'subsets' derived from the *BMJ* checklist (Drummond MF, Jefferson TO et al. 1996); (Jefferson T, Demicheli V et al. 2000), but SCIE strongly recommends that the full 35 item checklist be used for partial economic evaluations and adapted by marking those items which do not apply to the individual study as 'not applicable'. This is suggested because some of those items on the full checklist which do not appear on either of the two referenced versions of a partial checklist will be applicable to many partial economic evaluations, and may be relevant to their methodological quality. Examples are items relating to discounting and sensitivity analysis (Shemilt, personal communication, 16 March 2009).

115. A further advantage of the *BMJ* checklist is that it has been found (Shemilt I, Mugford M et al. 2008) to be more straightforward for non economists to use, although at least one of the researchers or information specialists should have basic training in economic evaluation methods (as well as training in the use of checklists). Common, core training should also be provided to ensure consistent interpretation and application of checklist items and two or more researchers should apply the checklist. They should be blinded to each other's assessments of the studies and disagreements resolved through discussion.

116. Following quality appraisal, SCIE suggests use of the data extraction coding tool found in Appendix 8. It should be used for identifying resource use data in economic evaluations and in effectiveness studies. The coding tool involves the

interrogation of studies using closed questions grouped in seven sections. The sections and an example question for each are listed here:

- intervention and control programme (example question: 'number of intervention sessions')
- practitioner information (example question: 'main type of practitioner providing the intervention programme')
- practitioner training – intervention programme (example question: 'number of intervention programme training sessions')
- practitioner training – control programme (example question: 'duration of each control programme training session')
- additional resource information - intervention programme (example question: 'amounts of each type of equipment and other materials used')
- additional resource information - control programme (example question: 'service recipient/ family resources')
- cost data and cost effectiveness (example question: 'does study include any information on cost effectiveness?').

117. Although the questions are designed to extract all relevant data, it is highly unlikely that the paper describing the effectiveness study will contain all the answers. There may also be a distinction between the costs reported in a study and the costs stated by the ‘brand owner’ of the intervention. One way of validating and supplementing the data is to request further information on the intervention which might have been omitted from the published report from study authors. This could involve asking them to complete or correct sections of the data extraction tool.

118. A major consideration for using the resource use data extraction tool is project resources, including the skills and experience of team members. Although they do not need to be economists themselves, people undertaking the data extraction would benefit from support, for example through a project advisory group, and from colleagues with an economics background.

119. Another important consideration occurs when the economics aspect of the review is estimating the costs of a recommendation that constitutes a new way of working or a new way of delivering a service. To identify the difference in resource use between the ‘new intervention’ (e.g. what will be a practice recommendation) and current practice it will be necessary to find out what resources are used to deliver standard, existing practice as well as the likely resources required to implement the recommended intervention. SCIE’s costing methodology advises that a bottom up (or micro costing) approach be used to do this and identifying current resource use should involve consultation with experts and stakeholders, for example through focus groups or a practice survey.

Detailed review processes: preparation

User and stakeholder involvement

120. The involvement of service users, carers and other stakeholders is a requirement of SCIE's single equality scheme. In order meet this requirement involvement must be:

- Accessible – to make it possible for an appropriate range of people to participate fairly and equitably.
- Transparent – to maintain SCIE's ongoing commitment to involve users.
- Proportionate – the approach taken should be commensurate with the project team's capacity to facilitate and deliver involvement.
- Influential – it should possible to see how the input from users and stakeholders has affected the project.
- Focused – the process should be clear about what resources are available and where there is scope to make changes.

121. The involvement of stakeholders in the systematic review process can also have a number of other objectives. These include:

- ensuring relevance of the review to stakeholders (who may include service users and carers, practitioners, policy makers, researchers)
- accountability of the project to stakeholder groups
- empowering service users and carers
- assisting in steering the project at various decision points
- identifying additional sources of literature, including user testimony and agency literature not identified through other sources.

122. When involving users and other stakeholders it is essential to ensure that people's access needs are met and they are able to participate fully in the process. Different stakeholders are likely to have differing access requirements.

123. The capacity in which different advisers are contributing should be made explicit and transparent. SCIE places a high priority on service user and carer involvement and therefore the emphasis in this guidance is on good practice in relation to this group.

124. It is especially important for SCIE reviews that, as far as possible, the service

users and carers who are involved in the process have experience of the services that are being evaluated in the review. It is important to avoid the tokenism of simply involving a user or carer without trying to ensure that he or she is an 'expert by experience' of the particular intervention or service under review. Where it is not possible to involve users and carers with this experience, this should be transparently reported. Where possible, the composition of these groups should reflect the ethnic and cultural background of people who use the services, using SCIE's single equality scheme as a guide – see Appendix 5. The recruitment process for all stakeholders should be transparently reported.

125. The involvement of all stakeholders, particularly service users, carers and practitioners should, as a minimum, assist in determining the scope of a review and the outcomes that are relevant to them. They may also play a key role in assisting the review team to identify sources of literature to include in the review, particularly sources of user testimony or material produced by community groups and organisations. There are ways, however, that all stakeholders can contribute at all stages in the process – time, availability and resources permitting.

126. Many review teams develop advisory or stakeholder groups to contribute to different stages of the process. As a minimum such groups should have the opportunity to contribute to the protocol, and to steering the project at interim report stage and at draft final report stage.

127. It is good practice to involve advisory or reference groups in interpretation or conclusions as review authors may not always have the experience to interpret findings accurately and understand their application. It may help to have a wider group than the review team discuss the draft report and conclusions.

128. SCIE is committed to paying service users and carers who participate in our work as this gives value and recognition to their contributions. However, SCIE is aware that there can be complications for people who receive benefits if they accept such payments, and sometimes even if payment is offered but not accepted. Before offering or making any payment it is essential to give users and carers access to specialist advice about these issue. SCIE has arranged for such advice to be available to any users and carers who take part in its work through a welfare rights helpline. SCIE will provide details of how users and carers can access this service and other guidance on this issue as required.

129. Interim guidance on the involvement of service users and carers in systematic reviews has been developed by SCIE – see Appendix 5. Furthermore, a series of examples of user and carer involvement in systematic reviews is available on SCIE's website (Carr and Coren 2007). These are intended as a resource for commissionees and should be consulted for ideas of innovative practice in this area and we plan to add to this methodological resource as more examples become available.

130. The contributions made by all those involved in a review should be transparently recorded in the review methods section of the final report, and as part of the reflective evaluation (Paragraphs 306–310).

Inclusion/exclusion criteria

131. These criteria should be based on a clear review question, and should articulate precisely on what basis studies will be included or excluded from the review. They should arise from the question and the objectives. For questions that relate to effectiveness or for other questions that relate directly to an intervention, these should normally be based on the following areas:

- language (since ordinarily only English language papers can be included)
- dates of publication (from which year). It may be important to ensure that studies are relatively current, particularly if they relate to new policy areas. Reducing the range of publication dates will also help reduce the amount of data to be reviewed to manageable proportions.
- types of materials to be included (books, conference proceedings, webpages, etc, may be included or excluded)
- participant or user group (e.g. children in foster care for at least six months)
- type of intervention (e.g. individual payments)
- setting for intervention (e.g. review question may only concern community based or institutional settings, or rural locations)
- who provides the service (e.g. are services provided by healthcare providers to be included, or only those provided by social or care workers?)
- the types of studies to be reviewed (e.g. empirical evaluations only, or empirical evaluations and qualitative studies including user and carer views; exclude studies with insufficient clarity about design or methods)
- the outcomes to be considered (e.g. independence, placement stability, parenting skills, outcomes for service users may all be targeted or excluded)

Insufficient detail of any of the above may be an exclusion criterion.

132. Recent work undertaken by SCIE has suggested that critiques of included reviews, and of primary studies which are judged to be important to the review, should also be included, in order to support the quality appraisal of these studies (see Paragraph 158 for an example). It is likely that these papers would appear in the searches under topic criteria, but without specific inclusion, may be screened out. Searching could also include the use of citation alerts to identify commentary. This approach will take into account the important critical perspective of peer researchers.

133. It is SCIE's usual practice to draw up a table of exclusion criteria (e.g. exclude material published before 1989), with categories outlined and clarified. This table can be expanded where necessary as the tool is piloted. The exclusion categories (e.g. EXCLUDE study type; EXCLUDE outcomes) can be entered onto database fields as

the title and/or abstracts in the database compiled from searching are screened. The table should be ordered with the easiest categories ascertainable (usually language and date) first to enable fast screening. Simple searches on the database will then enable a report on how many references were excluded under each criterion to be compiled. The table of exclusion criteria is also a shorthand account of the scope (remit and range) of the review (and should be published in the final report). Studies meeting all the criteria are marked INCLUDE in the relevant database field.

134. Inclusion/exclusion criteria are ordinarily applied to title and abstract only, and it is commonly the case that there is insufficient detail to make a full judgement. Inclusion/exclusion criteria should be revisited once the full texts have been retrieved for analysis, as it may then become clear that they do not meet study criteria. Criteria should be borne in mind as each paper is considered for data extraction. Quality of methods may also be a criterion for inclusion. However, while healthcare studies may exclude any uncontrolled studies, reviewers of social care studies may need to be more inclusive. They should, nevertheless, be entirely transparent about the screening processes and the reason for decisions.

135. Except where insufficient information is reported to assess study design and quality, studies that otherwise meet the inclusion criteria should not be excluded because weak methodology is likely to result in biased findings. Rather, methodological bias should be assessed in order to weight studies as part of the later quality assurance of included studies, as discussed in Paragraphs 181–213.

136. The process of determining inclusion and exclusion criteria should be recorded and included in the final review report. The project lead for SCIE in the review team should be consulted on the criteria, and it is good practice to consult more widely, and particularly with the advisory group. The criteria are the means by which the review question is operationalised, and are a critical aspect of the methodology of the review. They will need to be piloted on the results of early searches, and may (with the agreement and knowledge of the whole review team) need to be amended and updated as the content of the data becomes better understood.

Searching

Overview

137. The aim of searching in a systematic review is to find as many potentially relevant items as possible. This section looks at searching on electronic databases and also using internet and other searching to identify all relevant literature such as user testimony.

138. There is usually a trade-off in searching between specificity (very specific searching that may limit the number and range of items retrieved as relevant) and sensitivity (broader searching that may lead to very extensive retrieval which is likely to include a higher proportion of irrelevant information). It is also important to bear in mind that not all research or relevant information is published in peer-reviewed journals, so searches of relevant websites, contact with specialist practitioners and researchers, and service users and carers who are experts by experience, are also important. This includes, where it applies, the review's advisory group, and searches of websites that list ongoing research (such as the Research Register for Social Care, CERUK database). All searching should be reported transparently, so that someone else undertaking the same search is able to obtain the same search results.

139. It is strongly recommended that reviewers use reference management system software (e.g. Endnote, Procite, Reference Manager) to screen and manage the retrieval of studies. This will make record keeping much easier. It should be possible to upload from electronic databases into such software packages. Review teams using EPPI Reviewer or similar software may find it possible to manage screening and data extraction processes within the one package (see Paragraphs 311–313 for information on software to support the review process).

Search strategies

140. Searching is a specialised skill and review teams are strongly advised to seek input from information scientists or specialists in refining and applying the search strategy. A little time spent on this will save a great deal of time later.

141. In general, search strategies are devised by developing strings of terms, linked together with BOOLEAN operators (AND/OR/NOT), together with other codes specific to the databases. It is therefore useful to have developed a clear review question and to divide it into sections for the purpose of developing appropriate search strings.

142. For example, to search for items on the topic of day care for children with learning disability you might use the following: (terms for) children OR (other terms for) children AND (terms for) learning disability OR (other terms for) learning disability AND (terms for) day care OR (other terms for) day care.

143. The search strategy developed to underpin electronic or other searching should be included as an appendix to the final report. In addition to specifying the terms used, the search strategy should cover any general limitations applied in the search (e.g. English language materials only, or materials from a restricted time period).

144. SCIE encourages reviewers to search for appropriate material in all languages. This is accepted to be the most unbiased approach in taking evidence from the health and social care sector (Egger, Zellweger-Zahner et al. 1997). There may however be reasons for particular reviewers to search for English language only (e.g. a particularly UK topic focus, or pragmatic time-constraints). In the interests of transparency a decision to search only in the English language should always be described and explained in both the protocol and the review. Unless the review team has other language skills, non-English items will be excluded at the first screening, but it is useful to report on the amount of material thus discarded. If the material is highly relevant, perhaps because an intervention new to the UK was adopted in Europe or Scandinavia some years ago, translation could be commissioned.

145. The search strategy should contain:

- date the search is conducted (e.g. 1 February 2010)
- date limits set on records to search (e.g. 2000–2010) and rationale
- any language limits set on records to search and rationale
- exact search terms used for each database.

146. In addition to database searches as detailed below, search strategies should be designed to capture user testimony and 'grey' literature (literature which has not been formally published) e.g. King's Fund and Joseph Rowntree Foundation literature. Grey literature can also be found on Social Care Online.

147. A further potentially useful source of information about ongoing or completed studies may be proceedings from relevant local and international conferences. Web searches should help identify relevant websites and contact details.

Bibliographic databases for SCIE systematic knowledge reviews

General tips for database searching

148. Once a draft search strategy has been devised, it is good practice to run that search on one year of one (likely high yield) database (e.g. PsycINFO for a mental health topic), to assess the potential fitness for purpose of the strategy. This enables refinements to be made at an early stage, and again, may save time later. However, all bibliographic databases are different so there may need to be some repetition of this process for different databases, and development of appropriately different search strategies. All refinement processes should be reported in the review technical report.

149. Another tip when devising search terms is to look at the keywords (terms used to describe entries in a bibliographic database) of a relevant retrieved paper, and add these terms to the search strategy. It is always worth piloting search strategies and revisions to search strategies, to assess what difference is made by using new or different terms, before running the search strategy very widely, as suggested above.

150. It is always important at this stage to remember that terminology alters with time and historic terms will need to be employed when searching databases (e.g. 'elderly' changed to 'older people').

General databases

151. The following databases should always be considered for searching. It is not intended that all reviews will search all databases, but reasons should be given for selecting particular databases. Small pilot searches can be undertaken to improve the selection strategy. In relation to reviews commissioned by SCIE, SCIE will provide advice about database coverage and overlap and implications of any omissions.

- Applied Social Sciences Index and Abstracts (ASSIA)
- Campbell Collaboration Library, including C2-SPECTR (Social, Psychological, Education, and Criminological Trials Registry) and C2-RIPE (Register of Interventions and Policy Evaluation) databases of reviews
- CINAHL (Cumulative Index to Nursing and Allied Health Literature)
- Cochrane Library (CDSR, CENTRAL) for health-related topics
- DARE (accessed via Centre for Reviews and Dissemination (CRD) website: www.york.ac.uk/inst/crd)
- Dissertation Abstracts
- EMBASE
- EconLit
- Health Management Information Consortium Database (HMIC)
- International Bibliography of the Social Sciences (IBSS)
- Medline
- NHS EED
- PsycINFO

- Social Care Online (SCO)
- Social Policy and Practice (via OVID), including Accompline, AgeInfo, ChildData, Planex and Social Care Online
- Social Sciences Citation Index
- Social Services Abstracts
- Social Work Abstracts
- Sociological Abstracts
- Wilson Social Science Abstracts
- ZETOC

152. Where the review includes interventions that might be either classed as educational or offered in an educational setting (e.g. some interventions aimed at young people such as teenage parents), The British Education Index (BEI) and Educational Resources Information Centre (ERIC) may be useful additional databases. Depending on the topic of a review, there may be other relevant databases, including those offering 'grey' literature. Examples include CommunityWise, NSPCC Inform, DrugData. Some independent research bodies may also be good sources of material, e.g. Alcohol Concern, Centre for Research in Ethnic Relations, Joseph Rowntree Foundation, etc. Use of databases should be strategic and topic-related: there may be costs associated with their use, and the time taken in searching, retrieving and screening is itself a cost.

Additional searches

153. Additional searches of specific journals should be considered (including handsearching and searches of electronic tables of contents/journal hosts), together with the results from following up references in retrieved material (citation tracking) and from personal contacts and personal databases. Recent methodological work shows the importance of author tracing, and the use of personal contacts and other methods to identify studies (Greenhalgh and Peacock 2005). However, clear cut-off times should be given for this in view of the tight timescales for reviews. All the activities undertaken in searching, plus the strategies, and the rationale for important decisions, should be clearly written up in the final report, with the search strategies themselves included in Appendices.

154. Existing sources on systematic reviews do not offer agreed guidance on handsearching. Ultimately, criteria for handsearching is for reviewers to decide, but one approach that should be considered is to restrict handsearching to recent issues of key journals because there may be delays in their contents reaching the electronic databases. Selecting key journals is again a task for the reviewers, but one technique that should be considered is to use the results from the searches of

electronic databases to identify the most frequently sourced journals. An example of this in operation can be found in *SCIE Knowledge review 6* (pages 61–62) (Trevithick, Richards et al. 2004). It is perfectly legitimate to include material identified through these means, provided that the method of locating the work is clearly described and provided it meets the review inclusion criteria.

155. Some journals are indexed in their entirety on Social Care Online (SCO) (www.scie.org.uk/sco/index.asp). In these cases it is likely to be necessary to handsearch only the last couple of issues to account for a time lag in indexing. A list of these journals (up to date in November 2009) is included as Appendix 6.

156. It is good practice to track citations (text references) that appear to refer to relevant studies cited in retrieved material, and where appropriate to include these in the review. This process should be reported in the review.

Duplicate reports of one study

157. Some studies will appear more than once, often coming from different databases, and these will need to be weeded out from the final search results. Where several reports are retrieved from a single research study, perhaps because different aspects of the study results are reported in different journals, all reports that meet the inclusion criteria should be included in the review and cross referenced. These should be listed as separate references but as one study, and the study should count once in terms of the number of included studies in the review. Where any difficulty or confusion arises with this aspect, it should be referred to SCIE.

Inclusion of systematic reviews

158. Where searches find previous systematic reviews on related topics, the included studies should be assessed for eligibility for inclusion in the review in hand. As possible review questions are infinite in number, it is quite likely that the search will uncover systematic reviews which focus on related questions, and that the studies included in that review will be eligible for inclusion, while the review itself may not be. The report of the search should include a heading ‘Studies identified from previous systematic reviews’ to clarify the origin of these articles. Critical commentaries on reviews should also be included, as these arise from the expertise of the peer research community and may raise issues which reviewers might overlook, see (Pignotti and Mercer 2007) for an example. Checking citations of these papers should call up subsequent related papers.

159. If systematic reviews are found that answer the same or a very similar question to that posed by the current review, there may not be the need for a further review. If this occurs it should be discussed with SCIE as soon as possible.

Recording the flow of information through the review

160. To record the flow of information through the review, it is expected that a flowchart similar to that in Appendix 3 will be included in the final report. Ideally, a partial version of this should be made available for discussion at the interim report stage. This flowchart reports the:

- number of items found in searches
- number of items found by other means (personal contact, stakeholder input, handsearching, citation tracking)
- inclusion/exclusion of items
- number excluded on preliminary screening, and reasons
- number of full-text items retrieved
- number excluded on full-text screening, and reasons
- number included in the systematic review.

161. An example of a report of a search strategy from a recent SCIE systematic review (Trevithick, Richards et al. 2004) has been reproduced as Appendix 7. In addition to the information given in tables, some text is required to describe the processes at each stage, and the search strategy for each database should be reproduced in full as an appendix to the final report. The flowchart described above (in Appendix 7) should be included in the text of the review report, with a brief textual description of the flow of literature.

Screening of studies against inclusion/exclusion criteria

162. Reviewers should state in the protocol how studies identified by searching will be screened for inclusion in the review (see Paragraphs 131–136 above on criteria). These methods should also be reported in the review report. Screening is normally a two-stage process, with inclusion criteria being screened against titles and abstracts at the first stage, and then again against full texts once these are retrieved. It is usual for further studies to be excluded at this second stage. In our experience, second-stage decisions are often absolutely clear or are more marginal. Review team members may need to be consulted, and it is possible inclusion criteria will need to be clarified. Over-inclusion of such marginal studies should be avoided in the interests of time-management. The important consideration is whether or not a study addresses the review question.

163. Potentially, both human error and bias are introduced when only one reviewer screens data at any stage of a project. Therefore, a proportion of studies screened at the first stage by one reviewer should be checked by another: we advise that a

minimum of 20 per cent, randomly selected, are double-screened. At the second stage, when full text items are available, SCIE requires that all items are screened by more than one reviewer. Discrepancies between the two reviewers will need to be discussed, and may be referred to a third party or a wider group. The purpose of double-screening is to ensure that the methodology and application of exclusion criteria is transparent and replicable, and therefore that the review is comprehensive and thorough within its stated terms.

164. All screening decisions should be recorded and presented in appendices to the full final report. An example of a flowchart for this purpose is included as Appendix 3. Exclusion decisions should be recorded, reasons for exclusion listed, and the numbers excluded for each reason clearly stated. Exclusion reasons should be drawn directly from the inclusion and exclusion criteria.

165. As noted earlier, this process can be facilitated where reviewers use reference management software. In particular, there are usually empty fields in these databases. One of these may be used to record initial decisions and retrieval status e.g. 'exclude/order full text'. Reasons for exclusion should also be noted in abbreviated form, so that the flowchart can easily be populated from database search reports.

166. SCIE requires that the level of agreement between those involved in screening is recorded and presented in the review. The protocol should state how any differences of opinion will be resolved (e.g. by moderation/by another reviewer/ by consensus etc.).

Data extraction

167. The purpose of extracting data from included studies is:

- to describe the study in general
- to extract the findings from each study in a consistent manner to enable later synthesis,
- to extract information to enable quality appraisal so that the findings can be interpreted.

Ideally, this should be undertaken in such a way as to require minimal reference to the original papers at data synthesis stage. Essentially, the data extraction forms drawn up for each study provide a bridge between the primary studies and the data to be included in the review. Thus, the data collected on the data extraction forms provides the basis for the quality appraisal, analysis and synthesis of data stages in the review. Some data, for example detail on methodology, may be useful to most reviews. Other data, perhaps linked to the topic, may be quite specific to a topic area or the review question.

168. To minimise human error and bias, and to increase transparency, data should be extracted by a minimum of two reviewers, with the final version for use in the review agreed between the two. A word of warning: data extraction can be time-consuming, it entails two people reading all the papers, the recording of data and the discussion and agreement of final decisions. Do not underestimate the time this can take, and ensure there is enough time allowed for this process.

169. Data extraction can be shared out across review teams to make the best use of resources. The form may also be shared with SCIE commissioners, as it is one aspect of the transparent audit trail on which the ‘systematic’ claim of the review is based. It is likely that reviewers will share data extraction forms at synthesis and writing-up stages, so abbreviations are best spelt out in full.

170. Appendix 4 is a (relatively short) sample data extraction form (Appendix 8 is a more complex form for use with economic evaluations). This form may be adapted for use in individual reviews as necessary, or forms may be designed for individual reviews. The sample form contains guidance on the kind of information to be included in each section. The form should be designed in a logical way for ease of use. Forms should be piloted by all reviewers likely to be participating in the data extraction process, each reviewer testing the draft on at least five of the included studies.

171. Reviewers should also set up internal quality assurance processes within the review team, to ensure consistency of recording of information and interpretation of the different elements of the form. Reviewers should always share uncertainty about coding with other team members, since the data extraction process, normally recorded online, will form a building block of the synthesis and analysis.

172. Data extraction forms can be managed in Microsoft Word, Excel or Access. Access may be extremely useful as it enables exploration of relationships between different domains to be conducted electronically, which may aid synthesis. However, some review teams may choose to use a paper data extraction form, which is entirely acceptable. Where review teams are supported by the EPPI-Centre (as some SCIE teams are), EPPI Reviewer software (Thomas 2002) would be used for all stages of the review including data extraction. (See Paragraphs 311–313 on software to support the review process).

173. Data extraction must be conducted on full texts, which will have been retrieved following the screening of titles and abstracts against inclusion criteria (Paragraphs 131–136). Recent methodological work demonstrates that abstracts alone are not always reliable sources of information (Hopewell, Clarke et al. 2004).

Reporting of study characteristics in the review

Reference for study	Participants	Intervention	Outcomes measured	Research method	Summary of findings
authors, year, title and publication details	number recruited, ethnicity, age and gender where important, type of population e.g. social work students, children in foster care, adults with schizophrenia	include type of intervention (e.g. day care facility), who delivered by (e.g. counsellors, social care professionals, peers), frequency (e.g. daily, weekly, drop in), intensity (e.g. one hour, two hours)		e.g. single group pre-post test, participant observation, randomised controlled trial (RCT))	

174. In the 'Description of included studies' section of the final review report, a table should be included that briefly describes each study. Some data extraction software systems enable this information to be produced automatically from the data extraction database (e.g. EPPI Reviewer, Paragraph 311–313). The table above is an example of the kind of information required for a review of interventions.

175. .A useful example of such a table from a completed review appears as Table 6.1 on pages 175–176 of the text on *Systematic reviews in the social sciences: a practical guide* (Petticrew and Roberts 2006).

176. Data extraction processes for all study types should be reported transparently in

the review report, and summary tables should be included in the main body of the text or as appendices. Software can both support the process of analysis and the transparency of both analysis and reporting.

Reporting of qualitative study characteristics in the review

177. Data extraction from qualitative studies is as important as that for other kinds of studies. Good qualitative data synthesis (QDS) requires reviewers to get to know a small selection of studies extremely well – much as when researchers analyse qualitative interviews. Most QDS uses the results of the data extraction to identify common themes, occasionally referring back to the original studies, rather than working primarily from the original text. This means that good data extraction, following criteria agreed by the review team and validated by checking across the team, will provide the mainstay for the QDS. Where there are electronic versions of published studies, text can be cut and pasted into data extraction forms. SCIE's report on QDS gives examples of data extraction from qualitative studies (Fisher, Qureshi et al. 2006).

178. It is good practice for review teams to decide whether they will report quotations from qualitative studies verbatim or whether the reviewers will summarise quotes for the review. Whichever is decided, this should be made explicit in the review and the protocol and done consistently.

179. Extraction of quotations from qualitative studies has an additional component. Quality appraisal should accord greater weight to studies that appropriately support their interpretations with quotations of the views of participants. It is sometimes important to record these quotations in the data extraction forms because they can then be used to capture themes or conceptual categories. In SCIE's report, for example, older people were sometimes reported as saying such things as 'there's no point in making a fuss' or that they understood that nurses had to work according to 'their system'. The recording of the direct quotations sensitises the reviewers to the theme or category (here the issue is how to explain low levels of participation in decision-making) and can then be replayed into the report of the synthesis to lend greater authenticity: see for example (Fisher, Qureshi et al. 2006), pages 35–36.

180. The process of examining qualitative data extracted from studies can be assisted by using computer-assisted qualitative data analysis software (such as Atlas/ti or NVivo or any other software that allows searching of text extracts). The process involves exporting the textual comments into the software package and using it to assist the identification of themes or categories. Data extraction is then meshed with data analysis and synthesis (see paragraphs 214 – 236 for further discussion). Again, *SCIE Report 9* gives a brief example of this process (see pages 32–34 and Appendix D, (Fisher, Qureshi et al. 2006). For information on computer-assisted qualitative data analysis see the CAQDAS website (caqdas.soc.surrey.ac.uk/).

Quality appraisal of included studies

Overview

181. This section is intended to outline, but not to prescribe, SCIE requirements for quality appraisal of included studies. Where SCIE commissionees have their own frameworks for quality appraisal for use in systematic reviews, these may well be acceptable, as long as they incorporate the assessment of different types of study design. Quality appraisal of papers often relates to inclusion criteria for a review, and processes should be discussed and agreed with SCIE at an early stage of project work.

182. The purpose of quality appraisal is to determine the relevance and trustworthiness of the findings of individual included studies (Egger, Jüni et al. 2001); (Sheldon, Guyatt et al. 1998). The relevance of a study to the review topic, and the appropriateness of design to address the review question, are two aspects of quality; the integrity of the methods used in the study, and the confidence we can have in its findings, are others. Some reviews (including Cochrane and Campbell reviews) exclude studies which do not reach certain criteria in the latter category, including only controlled trials. Social care reviews are more inclusive, largely due to the limitations of available evidence. However, it is particularly important in this context to be thorough and transparent in assessing the disparate studies.

183. The 'quality' being assessed in this section is the quality of the research, not the quality of the intervention. The reason that this is important is that assessment of research quality has a direct bearing on the strength of the evidence provided by the study within the review. A study conducted in a biased or unethical way will have less trustworthy results than a similar study conducted in an unbiased and ethical way. Similarly, a study that is only partially relevant to the review question will have less weight than one that is more fully relevant. All such studies may be included in a review. Studies can be given a summary weighting (Paragraphs 191–194; 210–213), which is a shorthand way of distinguishing between them in the synthesis in terms of their contribution to answering the review question (Gough 2004); (EPPI-Centre 2006).

184. The sections laid out below discuss aspects of quality in no particular order. It is possible that reviewers will decide, on the basis of their increasing knowledge of the material available, to consider relevance to topic before the internal competence of the study methodology. If studies rated as having a weak bearing on the review question are to be excluded, there is little point in them undergoing a thorough methodological appraisal. However, some reviewers will seek to draw up an appraisal tool which extracts data addressing all quality categories. Time needed for piloting different approaches will also be relevant to how appraisal is conducted. SCIE does not seek to dictate the order of appraisal, but does require transparent reporting of data appraisal processes. A range of quality assurance tools for all types of study can be found in the NICE manual of methods for the development of public health guidance (NICE 2009).

General remarks on methodological quality of included studies

185. Where a research study has a quantitative approach, especially where, as in a controlled trial, the study design compares quantitative outcome measures between two different groups, there is some consensus about which factors can distort the proposed methodology enough to bias the results. For example, *The Cochrane handbook for systematic reviews of interventions* (Higgins and Green 2006) recommends that the following sources of bias are assessed for each such study selected for inclusion in a review:

- selection bias: systematic differences in the initial composition of the groups
- performance bias: systematic differences in the care provided to the two groups, apart from the interventions under investigation
- attrition bias: systematic differences in dropouts and withdrawals that alter initial group composition
- detection bias: systematic differences in outcome assessment (e.g. expectancy effects due to unblinded assessment).

186. Some of these features will also bias a qualitative study. The initial samples may not be representative, the interventions may not be delivered as proposed, and elements of the intervention and control can become mixed up, especially where they are delivered by the same care team. People may drop out early and their dissatisfaction with the intervention may not be captured, and the follow-up interviews may be 'led' by the researcher's assumptions. However, in general there is less consensus in relation to quality assessment of qualitative studies than there is for quantitative research (Spencer, Ritchie et al. 2003); (Dixon-Woods, Agarwal et al. 2004); (Dixon-Woods, Bonas et al. 2006), possibly because the complexity of a qualitative dialogue is so great that sources of bias are many.

187. A systematic review of 31 different tools for the assessment of quality in qualitative data found a large number of domains of quality (Harden 2004). In a presentation based on the findings of that review, Harden noted – from the 545 domains of quality identified within the different tools – the following examples of distorting factors that might affect the findings of qualitative studies.:

Sampling and sample:
- inappropriate or unjustified selection of cases or participants
- inadequate description of sample.

Data collection:
- asking wrong questions
- failure to keep 'following up'.

Data analysis:
- failure to search for negative cases
- selective use of data.

Products of data analysis:

- lack of variation in theory or explanatory concepts
- interpretations that do not fit the data.

188. These domains might help guide review teams in thinking through quality assessment in a review of qualitative studies. However, they are drawn from 31 tools developed for different purposes. Tools used should always be fit for purpose in relation to the studies being appraised. This may mean that review teams have preferences, or wish to modify a version they themselves have developed.

189. For a full discussion of quality appraisal and for further resources in quality appraisal – checklists, received wisdom, good practice – see Chapter 5 (pages 125–163) of (Petticrew and Roberts 2006).

190. The purpose of reporting quality appraisal should always be to enable the reader of the review to make an informed judgement about the value of knowledge gained from different sources. There is a great deal of common ground in the language and categories within most quality appraisal tools. Reviewers should therefore report explicitly and transparently the criteria for their appraisals, and share their preferred tools with SCIE commissioners as part of the protocol.

191. Clearly, there are many different aspects to the quality of the methodology. However, it is unrealistic to expect the reader to bear in mind all methodological criteria whenever the findings of a study are referred to, and for this reason, it can be helpful for reviewers to synthesise these aspects to achieve an overall 'weighting' for each study. The categorisation of research studies into strong, moderate and weak studies allows the reader to distinguish between findings in which she or he can have confidence (strong weighting), and those which should be judged as speculative, supported only by weak evidence. Clearly those studies with a greater strength of evidence should carry more weight than others when drawing conclusions or implications in a review.

192. In most cases, quality appraisal should not be used to exclude topic-relevant studies from reviews of social care unless insufficient information has been provided to enable the assessment of study quality. A low quality study will simply attract lower weighting than a high quality study. However, in the unlikely event that there are many studies of strong weight, this could be an option. Other factors, such as relevance to the review question, or the inclusion of service user views, may override the weakness of the study methodology, though this should be made transparent to the reader where it is relevant.

Assessing the quality of an empirical study in its own terms

193. Experienced review teams will probably favour particular tools for measuring the quality – internal validity – of a study in its own terms. These take account of the integrity of the study in pursuing its aims (which may be rather different from those of the review question). The quality of a study, its methods, its adherence to the

protocol and the transparency of reporting are important factors in considering what confidence we can have in the study findings. For this reason, quality criteria are reported for each included study in evidence tables, which, although they are often placed in appendices, are vital aspects of a review report.

194. Evidence tables are summaries of data extracted from individual studies. The summary data included in the tables allow readers to quickly appraise aspects of the study content and methodology. One column of the table may show a summary rating or weighting of each study (Paragraphs 210–13). Different types of research study will be 'interrogated' according to different criteria, and should be summarised in different tables. Examples of evidence tables for different types of study can be found in Appendix K of *Methods for the development of NICE public health guidance public health guidance* (NICE 2009). Evidence tables and summary weightings are used to formulate evidence statements (see Paragraph 254).

Minimum generic criteria (all empirical studies)

195. The following represents some of the generic criteria used at SCIE for such work:

- Is the study design appropriate to the study's question?
- Did users and carers participate in the design of the study?
- Was consent to participate obtained from study participants?
- Was the purpose of the study explained honestly to the participants?
- If representative sampling was used, was the sampling frame (selection of participants) representative of the population being studied, including different ethnic groups if appropriate to setting, location etc?
- If representative sampling was used, did all eligible participants have an equal chance of being recruited?
- Was sampling random or purposive?
- If purposive sampling was used, is the rationale for this clear?
- Were all people recruited into the study present at the end of the study?
- Is an account given of people who discontinued participation and their reasons?
- Were data collected by persons independent of the service or intervention delivery?
- Were data analysed by persons independent of the intervention delivery?
- Have authors reported on all outcomes defined at the outset of the study?

- Have authors declared any interests they may have in the results of the study
- (e.g. financial or professional gain from the intervention)?

Minimum (additional) criteria for qualitative data

196. SCIE's worked example (Fisher, Qureshi et al. 2005) concerns the views of older people on hospital discharge and four quality markers were used:

- strength of design – whether the studies reported material relevant to the research question
- centrality of older people's perspectives – whether the study reported older people's views (or, for example, those of their carers)
- quality of reporting and analysis – whether the studies gave enough depth and detail to give confidence in their findings
- generalisability – whether the studies assessed the relevance of their findings to the wider population and/or context.

197. It will not be possible to undertake a good synthesis unless the assessment of quality is sufficiently detailed. For example, the synthesis should give greater weight to studies that directly concern the review question (topic relevance, Paragraph 208 below) and those people affected by the service in question, and to those studies that give greater confidence in their findings by reporting depth and detail and relevance to wider populations and contexts. Reviewers will rely on some studies more than others because they are assessed as having higher quality, and they will find themselves constantly returning to the quality judgements during qualitative data synthesis.

Minimum (additional) criteria for quantitative data

198. Appraisal criteria for different types of quantitative study vary depending on the study design. A tool that is fit for purpose for assessing the quality of a randomised controlled trial (RCT) will not be appropriate for assessing the quality of a survey. It will be necessary when appraising different types of quantitative data to use an appropriate tool. One size does not fit all in this respect.

199. Where quantitative data are to be used in a review, reviewers should identify which appraisal tools are to be used. A selection of examples has been recently drawn together by Petticrew and Roberts (2006) and this is the best place to start. Additional material is available in the NHS Centre for Reviews and Dissemination (CRD 2009).

200. Critical appraisal should always be discussed with SCIE at protocol and interim

report stage, to ensure that appropriate plans are in place and appropriate tools are available.

201. Minimally, quantitative studies should appraise the following in addition to the generic criteria listed above:

- Were enough participants recruited to answer the study question robustly?
- Did all participants have an equal chance of being recruited to the study?
- Are enough data presented for results to be valid (on all variables: dependent/independent/outcomes)?
- Are enough data presented for results to be useful (on all variables: dependent/independent/outcomes)?
- If there is a comparison or control group, are they similar enough to the intervention group to be comparable?
- If there is a comparison or control group, were they treated similarly in the study? If not, was any attempt made to control for this?
- If there was a comparison or control group, how were participants allocated to groups, and by whom?

Quality appraisal of non-empirical studies

202. Quality appraisal is more complex for non-empirical studies as there is much less methodological evidence in relation to which aspects of appraisal reduce bias.

203 .It may be important in some SCIE reviews to include non-empirical studies, for example to consider the theoretical context of a new initiative, or understand terminological and conceptual background in an overview of research, for example (Taylor, Sharland et al. 2006). Such an overview, where used in a review of effectiveness, should be clearly distinct from the sections reporting findings or outcomes. Clearly, to include any kind of synthesis of non-appraised studies potentially introduces bias, and it is desirable to include quality appraisal of such material in SCIE reviews. Non-empirical studies should be assessed for topic relevance (Paragraph 206), methodological fitness for purpose (Paragraph 207), and the scope or selective nature of the material on which they are based. Analysts should consider potential conflicts of interest in such material.

204. Where no research studies that capture user views are retrieved in a review, the review may include user testimony from non-research sources. For the purposes of quality appraisal, these data should be treated in the same way as other non-empirical data.

205. As with the quality appraisal of empirical material, a table should be provided

listing the non-empirical studies included, together with the quality appraisal results. If this table is too big to be included in the final report, it may be included in an appendix, but a summary of the information should be reported close enough to the synthesis of these studies for it to inform the reader.

Relevance to the review topic or question (all studies)

206. Quality assessment for the purpose of systematic review has different dimensions: quality of study in methodological terms, and two dimensions of the relevance and appropriateness of the study for answering the review question (Gough 2004); (EPPI-Centre 2006). The dimension of relevance is important when managing large amounts of potentially includable literature which will have varying levels of relevance to the review question. These issues are outlined in turn below. Studies that are not eligible for inclusion in a review should have been excluded at the screening stage (see Paragraphs 131–136), and would not be subject to detailed quality appraisal. However, if there is ample material on which to draw, it may be useful to incorporate methodological or quality thresholds into inclusion and exclusion criteria, which will require some exploration of the quality of available studies before screening for inclusion.

207. The dimensions of appropriateness of a study for answering the review question are important because the original primary (included) study may have been undertaken for very different reasons and in very different contexts from those of the review, so however well executed a study, its approach may not fit that well with the review question (even if the study has met the inclusion criteria for the review). There are two main aspects of appropriateness. First, the focus (or relevance) of the study, which may be on the general topic addressed by the review question but may not be central to it in terms of sample, context, measure, analysis or any other aspect of the study. Second, the study design may not be the best means of answering the review question, however appropriate it is to the study's aims.

208. The following list may assist in assessing levels of relevance:

- Is the focus of the study relevant to this review?
- Is the conceptual focus of the study relevant to this review? Is the theoretical focus of the study relevant to this review?
- Is the context of the study relevant to this review?
- Is the sample or respondents included in the study relevant to this review?
- Are the outcomes measured relevant to this review?
- Are the ways of measuring outcomes relevant to this review?

209. In some cases the inclusion criteria for a review will specify only one specific form of research design to be included, such as those with control groups, but in other cases a range of research designs are included. In the latter case, studies,

however well executed, may vary in their ability to address the review question. For example, a very well executed large-scale experimental study may not be the strongest design for answering process questions. The relative fitness for purpose of different research designs for answering different questions is a contested issue, which makes it even more important that the bases of such judgements in a review are made clear and explicit in the reporting of all stages of a review.

Reporting strength of evidence or weighting

210. A review must report transparently how judgements on different dimensions of quality combine to provide an overall strength of evidence provided by each study (e.g. high, medium, low). Some review teams might decide to aggregate or average out the judgements made on the different dimensions of quality. However, SCIE encourages teams to report transparently the individual judgements on whatever dimensions are used according to available methodological knowledge in social care. Whatever judgement is made, it should be consistent across studies in any review and be explicitly reported.

211. In the 'Description of included studies' section of the final review report, a table should be included that briefly describes the quality of each study, incorporating the aspects of quality discussed above, as relevant to the particular study. It is also useful to consider the strength of evidence provided by each study as discussed above (e.g. high, medium, low), bearing in mind the assessments made in the different sections above (i.e. relevance and appropriateness combined with quality appraisal).

212. The EPPI-Centre weight of evidence system (Dickson and Gough 2009) operates as follows. The table briefly describes:

- the quality and relevance of each study, incorporating the three dimensions discussed above:
- the basis for the judgement on each dimension
- the basis on which judgements on each dimension are combined to provide an overall weight of evidence provided by a study.

This system is acceptable (though not mandatory) for SCIE reviews.

213. For all SCIE reviews, weighting should inform and contextualise the synthesis, and be reported in such a way as to inform the synthesis and findings section.

Data synthesis

Overview

214. Data synthesis is the point in a review where data and findings from different studies are brought together to answer the review question. This process should always be reported transparently in the review report, whichever types of synthesis are employed.

215. There are a number of types of data synthesis, and which is appropriate will depend on the type of data in the review, which itself depends on the review question. The following types of synthesis are outlined in this section: research overview (non-empirical studies), statistical meta-analysis, narrative synthesis, qualitative data synthesis, mixed methods synthesis.

216. As research synthesis is a relatively young methodology, the methods reported here have been used in a relatively small number of reviews and by specific review teams. Such innovations tend to occur as part of the process of engaging in systematic review, as new methods are developed to meet challenges that teams experience. SCIE encourages reviewers to reflect and comment on review processes: such commentary may be included in that section of the discussion which concerns limitations, attached as a separate appendix or discussed with the SCIE project lead.

217. Where the data are available, the synthesis of empirical data (from empirical research studies that have been subject to in-depth quality appraisal) should be complemented by synthesis of user and/or carer testimony. It is SCIE policy to supplement effectiveness studies and other research by including users' views of the intervention or other phenomenon that is at the heart of the review question. In some circumstances an intervention's acceptability to practitioners may be crucial. In circumstances where there is little or no research-based evidence found, reviewers may seek other ways of gaining user or practitioner views, such as the convening of expert user, carer and practitioner groups to discuss their experience. Where such activity was substantial, it could begin to assume the scope of a practice enquiry to complement the research review: see (Rutter 2009).

218. In a topic area where there are good quality studies focusing on effectiveness, the review search strategy and inclusion criteria should also seek out studies, often qualitative in approach, that report on the experience of users of participating in the intervention. They should also search for studies that report on any barriers and facilitators to effectiveness, such as the acceptability and accessibility of the intervention to users. In these cases, the information should be reported transparently, reflecting the different types of data and data sources. The review discussion and conclusions should consider the separate and combined influence of the findings from each type of data.

219. Synthesis of data should always incorporate an assessment of the strength of evidence contributed by a particular study in its own terms. Software used in

statistical meta-analysis usually accounts for this in studies where outcomes are quantitative. Where synthesis is not statistical, as is likely in most SCIE reviews, reviewers should assess the contribution of studies by combining the level of relevance and the assessed quality of the study, to ascribe a weight (e.g. high, medium or low) to the study within the synthesis.

220. SCIE does not prescribe the methods by which studies are weighted, but would expect the weighting scheme to be described, and to concern issues such as centrality of the study to the review topic; strength of design (in relation to answering the review question); generalisability (with respect to context of intervention, sample sizes and population, etc.) and clarity of reporting of methods. These areas are relevant to all types of research.

Reporting of non-empirical papers

221. There is no consensus in the field regarding the inclusion of non-empirical data and not all review teams will wish to include them. However, where there is justification for such a summary (for example, much has been written on an important and innovative topic area, but research is not yet available), some review teams may want to include such an overview. These studies are usually subjected to less rigorous quality appraisal than empirical studies (qualitative or quantitative). Authors should report clearly on the search and inclusion criteria and rationale, and any quality distinctions between the studies.

222. A synthesis of non-empirical papers may be important and relevant knowledge, but should not be termed ‘evidence’ as much of it will be opinion. Summaries of such data should always be reported separately from the synthesis of evidence from empirical studies, and clearly labelled with an appropriate heading. Information from such summaries should also be separately reported in the results, conclusions and summary sections so that readers are clear what level of data is informing which messages.

Statistical meta-analysis

223. Meta- analysis is a process that uses a specific statistical technique to synthesize the results of several studies into a single quantitative estimate (for example, a summary effect size). This method is appropriate where there are a number of controlled studies evaluating the same intervention measuring similar or identical outcomes. Because of the nature of the social care evidence base, few SCIE reviews contain data amenable to this method. If a sub-set of papers identified in searches by SCIE commissionees clearly warrant such attention, and the expertise is lacking in the review team, the reviewers should consult the SCIE project lead. There is considerable guidance on statistical meta-analysis (often referred to incorrectly as though it is the only form of ‘systematic review’) developed for use in other review organisations, predominantly around healthcare interventions: see for example (Higgins and Green 2006) and (CRD 2009).

224. The purpose of meta-analysis is to pool the results of studies which address the

same research questions using similar outcome measures. Meta-analysis is the statistical process of combining the results of similar randomised controlled trials, in order to estimate the likely effect size of the intervention which is being tested across an aggregate of all the samples.

225. A meta-analysis shows the range of outcomes from the different trials which meet inclusion criteria; what confidence can be placed in the assertion that the outcomes lie within a certain range of effect; and in summary, the combined average or mean effect size, as though all the people who participated had been put into one large single study sample. A forest plot (the common format for illustrating results) is appealing because it is easy to read, but it represents the summary of much thoughtful effort, and care must be taken, for example, that studies reported in several papers are not included more than once, and that the shortcomings of included studies are fully reported in evidence tables.

Narrative synthesis

This section draws on (Popay, Roberts et al. 2006) and (Noyes, Popay et al. 2008).

226. Narrative synthesis provides a description of the studies included and of the findings of the synthesis. Recent guidance (Noyes, Popay et al. 2008) suggests that narrative synthesis can be employed in any reviews, even where the main synthesis focuses on controlled studies, and can include studies that use both qualitative and quantitative methods. Guidance from the influential Cochrane Collaboration suggests a key role for qualitative studies to enhance reviews of effectiveness by offering an understanding of the experiences of 'those providing and receiving interventions … and factors that shape the implementation of interventions' (page 20.3).

227. Popay et al (Popay, Roberts et al. 2004) have identified four main elements to narrative synthesis:

- developing a theory of how the intervention works, why and for whom – the aim of which is to inform decisions about the review question, inclusion criteria and interpretation of study findings
- developing a preliminary synthesis of findings of included studies – the aim of which is to organise findings in order to be able to describe patterns across included studies
- exploring relationships in the data – the aim of which is to consider factors that might explain differences across study findings
- assessing the robustness of the synthesis – the aim of which is to assess the strength of the evidence included in the review.

228. Narrative synthesis should undertake these four elements sequentially. In practice, reviewers will move in an iterative manner among the activities making up these four elements. The currently unpublished narrative synthesis guidance (Popay, Roberts et al. 2006) includes two demonstration syntheses – one a synthesis of

evidence on effectiveness, the other focusing on evidence on implementation – which demonstrate the practical application of the narrative synthesis framework and the specific tools and techniques. A full copy of the guidance is available from j.popay@lancaster.ac.uk

Qualitative data synthesis (QDS)

229. Qualitative data synthesis (QDS, also called 'qualitative evidence synthesis' by Noyes *et al*(Noyes, Popay et al. 2008), involves identifying common themes across primarily qualitative studies and might at first sight resemble a literature review. However, it is much more than this: it generates 'a greater degree of insight and conceptual development than is likely to be achieved in a narrative literature review' (Campbell, Pound et al. 2003) and represents 'a conceptual development that constitutes a fresh contribution to the literature' (Britten, Campbell et al. 2002). Noyes *et al* (Noyes, Popay et al. 2008) emphasise that 'the real prize from the synthesis of qualitative evidence is not just a description of how people feel about an issue … but an understanding of why they feel and behave the way they do' (page 20.9).

230. QDS has been given substantial impetus by the work of Sandelowski (Sandelowski and Barroso 2007) and Dixon-Woods (Dixon-Woods, Cavers et al. 2006), both of which include worked examples. Researchers considering QDS should consult these sources and consider whether to employ some of the techniques under development. For example, Dixon-Woods *et al* (2006, page 4) sample within the total number of retrieved studies (rather than reading and coding all of them) and their quality criteria exclude studies only if they are 'fatally flawed'. SCIE does not have a position on the approaches developed by these authors, but we do expect that researchers will have considered the techniques they describe.

231. SCIE has also developed a worked example of systematic synthesis (Fisher, Qureshi et al. 2005) and again researchers are expected to have considered the techniques used in this example, which draws on work by Britten (Britten, Campbell et al. 2002).

232. SCIE's worked example (Fisher, Qureshi et al. 2006) uses three stages, identifying:

- the findings from the primary studies, such as the meanings reported to researchers (sometimes called *first-order* interpretations)
- the constructs and interpretations that primary researchers place on these findings (*second-order*)
- explanations and hypotheses developed by reviewers arising from second-order interpretations (*third-order*).

233. For example, SCIE's example shows (in Table 8):

- a first-order finding that older people perceive doctors and nurses as having more expertise in health and illness

- a second-order interpretation that this creates dependency on staff for information (a researcher construct)

- a third-order interpretation that trust is undermined when people perceived as experts do not agree and that anxiety increases when access to medical expertise is reduced (a construct arising from synthesis).

234. Once these stages have been undertaken and the key concepts are identified, a ‘line of argument’ is developed, or a reasoned case linking the concepts in a way that provides 'a coherent account of the field of study addressed by the synthesis’ and which holds the synthesis together' (Fisher, Qureshi et al. 2006).

235. The process of working through these three stages is as follows:

- The reviewers use the material provided by data extraction forms to identify findings and concepts: it is sometimes helpful to use software (such as Atlas.ti) to assist analysis. This process resembles a method of analysis known as grounded theory, in that it involves identifying conceptual categories and the studies (or extracts from studies) that support them.

- Core findings and concepts are compared across studies (sometimes this process is called ‘translation‘ or ‘reciprocal translational analysis’). A grounded theory approach is again relevant, in that the process resembles that of seeking similarities and differences between findings and concept. The process can also involve noting where expected similarities are not found and trying to explain why (sometimes called ‘deviant case analysis’ in grounded theory, akin to ‘refutational analysis’ in QDS).

- In this way, initial broad coding categories (e.g. participation of older people) are identified and tested until it is clear they are central.

- The reviewers should maintain an audit trail, linking synthesis statements to supporting studies or extracts and should cite the supporting studies or extracts in the account. Again, software for computer-aided qualitative data analysis (such as Atlas.ti) can assist with this.

- The synthesis and the line of argument that links findings and concepts should then be written up in such a way as to make the process of analysis as transparent as possible. In the worked example provided by the SCIE example, the synthesis is tabulated in three columns showing the first-, second- and third-order stages : see Fisher *et al* ((Fisher, Qureshi et al. 2005) pages 44–46.

- 236. SCIE underlines the point that none of the processes described above is a blueprint for qualitative data synthesis. Reviewers should demonstrate familiarity with the approaches signposted in Paragraph 235 above. Proposals for QDS should take account of the processes described here, and should demonstrate a transparent approach that permits the reader to interrogate the processes and potentially to replicate them.

Relationship of research review to practice enquiry

237. Often (though not always) the SCIE knowledge review will have two parts: the research review, and the practice enquiry. The practice enquiry (previously known as a practice survey) is subject to separate guidance (Rutter 2009). The focus of this section is the relationship between the research review and the practice enquiry.

238. Practice enquiries can complement research reviews in a number of ways, including:

- focusing on gaps in what the literature describes
- providing examples of practice which may not yet (if ever) be written up
- illustrating findings from the literature
- harvesting self-reports of innovative, interesting or representative practice
- identifying the presence – or absence – of particular services or interventions, so as to give some indication of the spread of a practice, its generalisability and any difficulties or opportunities associated with its implementation.

239. Occasionally, the practice enquiry may uncover written materials that have not been identified through database searching: they should then be assessed for inclusion in the review as described above and recorded as accessed through the practice survey. However, the main purpose of the practice enquiry is to allow access to practices and to tacit knowledge that may not appear in written material.

240. The reporting of a knowledge review which includes both research and practice knowledge should:

- Separate and signpost findings drawn from one source or the other (so that the reader can judge the evidence);
- Consider, probably in the discussion and conclusions sections, what can be learnt from the two sources in combination. The practice enquiry should always enable examination of where practice is congruent with messages from research. What is required is a dialogue between the findings of the research review and the practice enquiry to explore whether, among other issues:
    - the practice enquiry reveals concerns that have not been subject to research investigation
    - the research review reveals issues which have or have not been addressed in practice settings
    - the practice enquiry indicates barriers to or facilitators of practice improvement, or implementation of good practice, that could then be incorporated into the recommendations arising from the review. In some

cases, material from these two sources may form the basis of a SCIE practice guide.

241. If practice enquiries and research reviews are not conducted at the same time, the earlier findings should influence the protocol of the later work. For example, practice concerns may require a search to be refined in order to test whether relevant research is available; research findings may steer the focus of practice enquiries to implementation issues. The interim report stage of either approach may allow some steering of the other work. Where the timing does not permit a full dialogue between the research review and the practice enquiry, they may still be combined in a subsequent product, such as a SCIE practice guide.

Reporting research reviews

Overview

242. In most cases, SCIE will request at least one interim report on the progress of a research review. The format for this is not described here, as requirements will vary from project to project. SCIE's interest will be to ensure that the review is proceeding to time (as timetables may link into other activities, including production and policy processes); to ensure that any dilemmas (inclusion, search strategies, etc.) are resolved, so that the work delivered is as anticipated; and to ensure that there is liaison and learning transfer between different aspects of the SCIE programme in which the research review is (in most cases) embedded. If a practice enquiry has been commissioned from another organisation, the sharing of interim findings may be crucial. Interim report content should be agreed with the SCIE project lead, who will attempt to minimise any additional work for the review team.

243. The final report of a knowledge review will aim to give an account of the knowledge identified from research evidence, and, where appropriate, practice sources, in whatever formats are most accessible to a range of users. Some of the data from the enquiry may be best presented in charts or tables. Transparency and clarity are the key values for the presentation of findings. It is important that the methods, search strategy, inclusion criteria and quality assurance weighting are adequately described. A frank discussion of the limitations of the method is also required, to enable readers to gauge whether the findings are valid and likely to be representative of the field.

244. SCIE has changed its approach to reporting of knowledge reviews (which most often combine systematic research reviews and practice enquiries, formerly known as practice surveys). Previously, contractors were asked to submit a technical report (incorporating all technical details such as search strategies) covering both the research literature review and practice enquiry, followed by a shorter, more accessible 'main report' or knowledge review. It has now been decided (in consultation with our registered providers) that a single accessible draft report with technical appendices will be submitted. Specified word lengths do not include appendices. The final report will be amended as necessary following peer review.

245. If the review is part of a full knowledge review, the practice enquiry report will be incorporated as a separate section, so that the origins of findings and conclusions from different sources do not become confused. This is important to SCIE's commitment to transparency and quality of knowledge. The report section of the knowledge review will then report on both aspects, separately within a single report, using evidence from both the research review and the practice enquiry to arrive at conclusions. A section in the SCIE *Practice enquiry guidelines: A framework for SCIE commissioners and providers* (Rutter 2009) discusses the reporting of practice enquiries.

Report structure

246. Appendix 1 shows an outline of the proposed report structure for a research review. This would be amended to incorporate the structure for a practice enquiry, should this also form part of the knowledge review. The way in which this is done is not prescribed, but the principle of clear signposting and separation of aims, methods, and findings should always be adhered to.

247. The executive summary and contents page of a knowledge review should include a concise description of the method, aims and findings of the practice enquiry, clearly signposted.

248. The following sections mirror the research review report outline given at Appendix 1, but fill in some of the detail of what is expected. It is possible to vary the order of some of the sections.

Acknowledgements

249. Acknowledgements should not name SCIE staff because they are written from the perspective of SCIE (as commissioners of, and partners in, the work). Wherever possible, the input of teams rather than individuals should be acknowledged.

List of abbreviations

250. Include any and all acronyms and abbreviations that are used in the text.

Potential conflicts of interest

251. ‘None known’ is always better than ‘none’ – just in case!

Contents page

252. The purpose of the contents page is to signpost readers to the sections of the report. It is particularly important that the executive summary, aims, methods, findings, discussion and conclusions are highlighted as headings.

EXECUTIVE SUMMARY

253. An executive summary of no more than 1,000 words should be provided. This should cover the salient points of the review, and a short summary of conclusions. The executive summary may usefully follow the structure detailed below (aims, methods, findings, discussion, conclusions for each of the research review and practice survey elements, with some concluding synthesis), or it may be in point form. A 1,000 word executive summary will benefit from sub-headings, while a 300 word summary may only need paragraphs.

254. A useful aspect of an executive summary is the inclusion of 'evidence statements', which summarise, alongside a finding, the strength of the evidence to support it. Evidence statements reflect the work done within the review to quality appraise and weight individual studies (see Paragraphs 72 and 194 above). For example:

> 'Two highly-rated controlled studies support the finding that looked after children benefit from intervention X, and no studies were found to show that intervention X had no effect or poorer outcomes than the usual care.'

In a world where there is not enough time for all who need to know, to read the detail, these summary statements can be very useful, and the addition of the reference to the quality of evidence is a means of summarising caveats as well as supporting evidence.

Website material

255. SCIE will need to produce summary points for use on its website. Commissionees may delegate this task to the SCIE Communications Team, but may wish to supply a 'snappy' 50 word summary of the knowledge review, plus 4–6 bullet points, stating the key messages of the review. It is useful as always to bear in mind the key audience likely to be interested in these messages.

BACKGROUND

256. This should be a summary of the original background to the review, including the general context and the main policy and legislative context for the review. It may refer to a previous map undertaken by SCIE (see Paragraphs 24–27), or one of its partners, and show how the conclusions from the map contributed to the formulation of a research review question. It may also touch on the aims and objectives of the project or programme of work, and who (organisations, government departments) is involved. The summary may outline briefly what this publication aims to achieve or contribute to, and who it may interest.

AIMS AND OBJECTIVES OF RESEARCH REVIEW

257. The objective(s) of the review may be to explore one or more particular fields of enquiry, or a main research question. The aims are more detailed, and should be precisely stated, perhaps as research questions. These can be expressed briefly as bullet points. It is important that the aims and research question are revisited throughout the review report. This section also needs to describe the scope of the review, including any definitional issues, and how they were resolved.

METHODS

Criteria for inclusion of studies in the review

258. Inclusion and exclusion criteria can be summarised in two lists using bullet points. Where relevant, it should be clear if and how different inclusion criteria are used for a systematic map and subsequent research reviews. (A summary table showing inclusion criteria used for screening potential papers may be included as an appendix: an example is available at Appendix 2 below.)

Search strategy

259. The search strategy should be detailed fully in an appendix to the report. For example

> 'We searched the following bibliographic databases and websites for this review ... The search utilised the following main areas of keywords and synonyms, altered as appropriate for the different databases: children and young people; behavioural problems; residential care.'

260. Although evident from the inclusion criteria, the broad parameters of the search should also be outlined here, along with supplementary strategies for identifying material. For example:

> 'The search was limited to the English language and to literature published between the years 2000 and 2010. The advisory group contributed ideas for further sources of material and we also harvested references from studies that we retrieved that appeared to be relevant. We also assessed the included studies from 10 retrieved systematic reviews (include references) for relevance to this review.
>
> Full details of the search can be found in at (link to online report, appendix, etc.)'.

Further items for the section on search strategy are laid out in Appendix 1 below.

Other methodological processes

261. Information on and rationale for, the methodology of the research review will be based upon the protocol agreed at the beginning of the commission, but should be fully detailed here. It is helpful for any departures in methods in response to events to be briefly described, perhaps with reference to the full account in an appendix, as this helps us capture learning.

User and stakeholder involvement

262. If involvement of various stakeholders has been substantial, this section could

be a summary of material provided in an Appendix. Users and stakeholders may be included in any stage of steering the project, deciding on inclusion criteria, screening, etc. SCIE has in the past invited providers who have been particularly innovative or thorough in user involvement to contribute to publications focusing on this area (Carr and Coren 2007)

Screening of studies for inclusion in the review

263. The process of screening for inclusion should be described. Include information on who assessed the studies for eligibility, whether they used a screening tool, whether assessment was on full texts or (as is most likely) title and abstracts, how many people did so at each stage and whether there was any quality assurance (such as blind double-screening and discussion of discrepancies) of this process. If a tool was drawn up, piloting of its use should be mentioned.

264. The results of screening for inclusion and exclusion can usefully be presented as a diagram or flow-chart, showing numbers retrieved from searches at the top; the numbers excluded for whatever criteria; and the final number of papers included and analysed at the bottom. Examples are given in Appendices 3 and 7: Appendix 7 is taken from (Taylor, Sharland et al. 2006). These flowcharts could be further developed by showing detail of the reasons for exclusion, a useful addition particularly when (as in systematic mapping) one aspect of the activity is to draw conclusions about the scope and range of available evidence. If systematic mapping was used as the source for identifying most of the references on a particular topic, a description of the map output may be the logical starting point for study materials, with a linked reference to the SCIE online map report.

Retrieval of full texts

265. The number of papers included and retrieved – or not retrieved – as full articles should be recorded and disclosed. Failure to retrieve full texts is a powerful source of bias, and the flowchart referred to in Paragraph 264 above should be extended to show what was and was not retrieved by the deadline for retrieval.

Keywording and data extraction

266. The two processes, data extraction and keywording, can be synonymous in review processes, and are almost invariably managed through data processing software, and using full texts (as opposed to abstracts alone). Keywords may be entered into the individual entry on a database, allowing quick retrieval of all items referring to that (design, population or other) category. However, the software now available (see Paragraphs 311–313) to reviewers allows complex data to be encapsulated rather than single words. A brief outline of the keywording/data extraction strategy, how and why it was applied is required in the report. Supporting documents (such as a data extraction tool, see Appendices 4 and 8) can be attached as appendices. This section should provide a summary of how data was extracted, and quality assurance aspects of the process (e.g. independent duplication of

extraction; discussion of variations). For example:

> 'Data were extracted using the data extraction tool devised by the steering group. The tool concerned which aspect of the review topic the study addressed, the research methods used, the stakeholders (users, carers, providers) in the research sample. Two separate reviewers applied the tool independently, and discrepancies were discussed. The full form appears at .... (link to appendix, etc.).'

267. Both the data extraction processes, and the methodological quality assurance assessment may be presented in table format, either within the text or as an appendix. Whether and how the characteristics of individual studies are presented is not for prescription, but the process must be transparently described. As a general rule, the greater the number and methodological variability of included studies, the more difficult it is to present results in unified format, e.g. one or more tables listing each study against set criteria. However, the framework for examining the studies – the data extraction tool – should be provided in, or as an appendix to, the report. The framework is likely to influence the synthesis of the studies, which is another reason why it should be disclosed.

Quality appraisal (QA) of included studies

268. This section should include a brief outline of both the rating of included studies (according to method and reliability), and quality assurance of data handling processes such as checking of rating by duplicate coding of studies (if applicable). For example:

> 'Qualitative studies were appraised using XXX tool or XXX questions. Quantitative studies were appraised using XXX tool or XXX questions. Findings appear in Table XXX and were used to weight the evidence in the synthesis. Full details of quality appraisal can be found in Appendix XX).'

Transparency and clarity are principles here: those interested should be able to follow a logical trail of decision-making.

Any other quality appraisal activities (e.g. duplicate syntheses as part of analysis) can be briefly summarised.

Data synthesis and analysis

269. This aspect of the report concerns the analysis process. This will include the drawing up of a framework for analysis (whether based on review questions, some other agreed framework, or derived iteratively from the studies). Technical terms should be avoided, so that the process is transparent to all readers. Separate processes may be used to synthesise studies reporting the views of service users and other stakeholders. For example:

> 'Data were organised by two separate reviewers according to a framework of

themes that emerged during the analysis, which were then refined into higher order concepts as outlined in table XX (include Table XX) The process was ratified by the Expert Advisory Group.'

FINDINGS

General

270. It is important that the findings section is confined to evidence that is contained in the individual studies and data synthesis, and derives in a transparent way from the studies included in the in-depth review that meet the review's inclusion and exclusion criteria. This is not the place for extrapolations and hypotheses.

271. The data in this, the findings section of the research review, is the key product or 'outcome' of the review. Description of the material accessed and analysed will need to cover both the topic range, the knowledge contained within the material, and some assessment of the reliability and generalisability of the material as evidence for practice. The following headings are proposed, but it is accepted that this section may need to be re-organised, sub-divided or expanded to suit particular topics.

Thematic overview: what does the literature address?

This section is a summary of the main findings of the review organised according to the strength of evidence and to the priority areas and review questions set out in the original protocol.

Description of studies

272. This section will need to include (as an appendix, if preferred) a table of included studies. (An alphabetical list of included studies and other text references should also be included at the end of the report.) There are different ways of summarising studies according to the overall quality of the evidence, but in general they should be described according to the quality and scope of the material, using evidence tables to describe both topic and methodology (Paragraphs 193–194). More than one table may be needed, for example to show studies included that address different aims or research designs. It is desirable that all tables are ordered alphabetically by first author, so that references in the text can be easily checked against the table description.

273. Care should be taken to describe and discuss separately findings from sets of research papers or information which has been subject to different inclusion criteria, or different levels of quality appraisal. These should have been separately assessed, tabulated and synthesised. The reader should be made aware of any shortcomings identified in the literature underpinning the findings, consistent with the use of evidence statements in the executive summary and conclusions.

Quality of included studies

274. Experience in healthcare reviews from the Cochrane Collaboration (Higgins and Green 2006) suggests four dimensions that should be taken into account in the discussion of results:

- the strength of the evidence
- the applicability of the results
- other information, such as considerations of costs and current practice, that might be relevant to someone making a decision
- clarification of any important trade-offs between the expected benefits, harms and costs of the intervention.

275. The strength of evidence should draw on the studies synthesised in the in-depth review. In particular, this should comprise the size and direction of any positive or negative results, the views of stakeholders about the problems and the intervention and, of course, the quality appraisal of the included studies and their weighting.

Data analysis and synthesis

276. This section will draw together the way in which the findings were analysed and synthesised. It may, for example, describe how the data extraction framework described in the methods sub-section (Paragraphs 266–267) was used to extract data around themes, and how these were organised. Quality appraisal, or the means by which interpretations are independently validated, perhaps by an independent analyst, should be described.

277. Findings from the synthesis of user and stakeholder views should be reported under a separate heading so that they are easily accessible and are not confused with findings of a different nature.

Economic, cost and opportunity cost data

278. Where such data are available, economic considerations should be reported under a separate heading. Where applicable, any trade-off between benefit and harm, and implications of alternative courses of action or choices of interventions, should be described. Where there is substantial material relating to resource allocation, it is recommended that the review team discuss with SCIE project and economic lead how this might be presented for maximum accessibility by readers.

DISCUSSION OF RESEARCH REVIEW

279. This section should discuss the findings from the research review within the

context of policy and other types of related data. This section may cross-reference, but does not allude in any detail to, the practice enquiry results: the findings from each source are reported quite separately, but are compared in the final section of the knowledge review (below), so that the reader is able to separately evaluate the findings from each. The discussion section should refer to other sources of evidence or policy developments, and discuss how and why they may conflict with the review findings.

280. It is also appropriate in the discussion to identify limitations and gaps in the literature, and to describe the recognised limitations of the research review itself as a method of evidence gathering. Such limitations may include limitations of the research team (and advisory group); limitations in the search strategy; limitations arising from the literature (e.g. lack of inclusion of ethnic minority populations in the studies identified; studies conducted only in urban contexts where environment is clearly important).

281. The discussion section, rather than the findings or conclusions section, can be used creatively to speculate on possible reasons for the anomalies and limitations in the findings, because it does not have the status of actual evidence.

282. It may be helpful to involve advisory or stakeholder groups in writing the discussion section, as review authors may not always have the experience to interpret findings and their application accurately. The draft report as a whole should benefit from commentary by a wider group of stakeholders, as those immersed in the review and its writing may find it difficult to approach the report from the fresh perspective of its potential readers.

CONCLUSIONS

283. The conclusions section should refer back to the aims and findings section, rather than to the discussion. Only that which is felt to have a secure evidence base should be included here. Conclusions of the research review may need to be qualified by reference to the quality of the research evidence. Conclusions should wherever possible include evidence statements – concrete conclusions specifying the credibility and generalisability of the evidence on which they are based. Evidence statements are described in (NICE 2009), and in Paragraphs 72 and 254.

General implications of the review

284. This section should draw directly from the findings and discussion section of the review, and should be relatively brief. Past analyses have shown that implications and recommendations from research and reviews are often not based on findings (Boaz and Pawson 2005), and these have no place in a SCIE review report. It can be helpful for implications to be separated into sections as relevant to different stakeholders, although sections should only be employed where relevant to the findings of a particular review. The following subheadings may be useful:

- implications for users

- implications for carers
- implications for equality and diversity, as covered by the single equalities scheme
- implications for practice (individuals and/or organisations)
- implications for policy
- implications for research.

285. Systematic reviews constitute a primary source of intelligence about gaps in the research base for the particular topic. They can also identify the huge variation in the quality of studies, and the quality (transparency) of reporting of methods, sample sizes, etc. Implications for policy and research may include the recommendation to address such gaps.

286. It may also be that the expectations of the review team in terms of the scope of the evidence were not met. It would be desirable, for example, that a review focussing on nursing home admissions would include material on arrangements for couples: if targeted searches did not found this material, this should be stated as a gap in the evidence. It may also be the case that diversity is neglected: e.g. there was no material found on services for homosexual partners.

287. Commentary on the quality of studies, and the quality of the reporting of studies in the field should also be made. Gaps in research concerning the availability of a user-led research base should also be highlighted in this section. Sufficient detail should be provided to enable such gaps to be addressed in future research planning.

288. In practice, it is likely that the shortcomings of the evidence base – in topic coverage, diversity of populations studied, study design and reporting of study methods – will all contribute to the qualification of any apparent implications. Some of these issues will already have been raised as limitations in the discussion section above. Here, it may be sufficient to refer again to the strength, weakness and range of the evidence supporting the implications for various stakeholders, alongside reference to material concerning the views of users and carers about the topic under study. Doubts about the evidence base always affect confidence in the reliability and generalisability of findings, and it is appropriate to raise those doubts alongside possible implications of the review findings.

Implications for practice

289. SCIE has a particular remit to adapt and disseminate the evidence base so as to improve social care practice. Where the review findings have clear implications for practice, SCIE staff may draw on a broader strategic understanding of the context, the sector, and what developments are in progress to consider potential uses for the review. It may be that the conclusions of a knowledge review suggest that additional publications, such as a more accessible practice guide, or an e-learning product, would be a useful aide to dissemination of findings.

290. The review may also have been commissioned as a contribution to a wider programme of work. For example, if a new programme of work is about to be financed to consider quality in care homes, it may be that a review considering access by care home residents to health services will be most effective if aligned with that programme of work.

291. Decisions about the further uses of the evidence acquired from a knowledge review are the responsibility of the relevant SCIE Programme Board. In considering the business case, the SCIE project lead is likely to discuss implications for future work on this topic with the review providers, since they may well have an interest in contributing to future products.

Incorporating a practice enquiry into a knowledge review report

292. Headings for the practice enquiry section should include a simpler, but compatible framework:

- aims (which may include reference to the associated research review)
- methods
- findings
- discussion (including limitations and sources of bias, and relationship to research review findings, if available)
- conclusions from the practice enquiry.

293. If there is a practice enquiry report alongside the research review, there should be a clearly signposted section discussing the synthesis, synergies, agreement, discrepancies and queries arising from the findings and conclusions of the two sources of data when brought together.

294. If the practice enquiry is a standalone product, it should also have a short Background section, and an executive summary. More detail of SCIE practice enquiries can be found in (Rutter 2009).

Word length

295. A knowledge review should be limited to the following word lengths:

research review element:	10,000 to 15,000
practice survey element:	8,000 to 10,000
total knowledge review word limit:	18,000 to 25,000

Throughout the knowledge review, lengthy but important detail can be placed in appendices, or made available to interested parties by including references and

weblinks to systematic maps or other electronic documents. Word length may vary on agreement with SCIE. However, length is a common impediment to accessibility, which is one of SCIE's core values, and the need for a longer report will need to be justified.

Report standards and formatting

296. SCIE knowledge reviews are presented as full reports (with substantial technical appendices) and as a plain English summary. The summary can be made available in other languages, where there is an established audience for the product. It is now SCIE policy to publish our longer products only online with the ability to download free of charge, rather than in paper versions. This for reasons of cost and to reduce environmental waste. SCIE is responsible for final editing, formatting and translation.

297. There is no specified limit to the length of technical appendices, which provide the detail required to satisfy the technical reader and to ensure transparency and replicability of the method. Technical terms are acceptable in technical appendices, but the main body of the report should be written in widely accessible language.

Peer review

298. The final reports of reviews will be sent to an internal peer reviewer at SCIE (often from Quality and Research Team), and two external peer reviewers. Reviewers will be selected according to expertise in methodological or topic areas. Depending on the topic and audience for the review, users, practitioners or policy-based experts may be sought. In addition, there will be an internal SCIE review process ensuring adherence to all guidelines and commissioning documents.

299. SCIE will edit the amendments to the report suggested by the reviewers and negotiate them with the commissionees. Where amendments are agreed, these should be made by the commissionees prior to receipt of the final payment agreed in the contract.

Attributing the work

300. Where the commission involves contacting or collaborating with other people or organisations, commissionees should describe themselves as working for their employing institution on a project commissioned by SCIE and should not imply that they are employed by SCIE.

301. Practice enquiries may acknowledge the input of organisations contributing to the practice enquiry, particularly if input has been substantial, as in hosting case studies. Although some agreement may have been part of original negotiations, participants may want to see a final draft before deciding whether to accept published acknowledgment.

Intellectual ownership

302. Authors will retain intellectual ownership of the work and will be credited as such. However, the material may be used by SCIE in its development work, posted on SCIE's website and/or incorporated into SCIE's social care online (www.scie-socialcareonline.org.uk).

303. Where material is made available to others as hard copy or in electronic form before it is completed, it will be described as pre-publication and will be accompanied by a copyright notice.

304. If authors intend to publish work resulting from this commission, they must acknowledge SCIE funding but must not claim SCIE approval for the contents. Publication, either in print or electronic, must be accompanied by a disclaimer stating that the views expressed are those of the authors alone. Authors must supply SCIE with a copy of the publication.

Quality assurance and use of knowledge products

305. In collaboration with the commissioned review providers, SCIE’s project manager will consider whether conclusions may be drawn from the review about the current or desirable state of practice. This may depend on the scope and quality of evidence, the current significance of the topic area, etc. Is there sufficient evidence to merit a policy statement from SCIE, or a statement backed by apparent confidence in the sector that there is an agreed way to do approach the topic of enquiry? If the research review is accompanied by a practice enquiry, there may well be sufficient material to warrant a practice guide as part of the programme of work. The relationship between research findings and practice guides is constantly under review by SCIE, as SCIE is developing methods of rating evidence and practice in relation to outcomes and cost-effectiveness.

Evaluation of review processes

306. The evaluation of review processes section need not be included in the knowledge review report, though if it is felt that they had an impact on the conduct and findings, any deficiencies in the process can be flagged up in the discussion section of the report. It might also be helpful to include in the main report a brief summary of the areas covered by the process evaluation. SCIE may separately publish elements of this with permission from authors, within the context of SCIE's ongoing methodological programme of work.

307. The review team is invited to comment on the following topics as part of the review. SCIE welcomes feedback on the support provided by SCIE, and how this might be improved, and on any other process areas which review teams feel should be improved or amended. Review teams have the option to feed back separately from the report, but may consider that the process impacted on the review itself, and therefore should be considered as part of the published report. Verbal or informal feedback (to the SCIE project lead; to mike.fisher@scie.org.uk or to deborah.rutter@scie.org.uk) is also welcomed.

Nature and impact of user and carer involvement

308. As noted elsewhere in this guidance and in Appendix 5, the impact of service user and carer involvement on reviews is under-researched, and therefore there are currently limited good practice examples to inform review methods. Whilst service user and carer involvement may be important in particular reviews, this aspect is not usually written up in review reports. SCIE is seeking to redress this balance by asking that this aspect of review method is written up in all new reviews. Possible headings within this section include:

- recruitment of users and carers to participate in review
- methods of involvement (e.g. via stakeholder or advisory groups; face to face, email or both)
- dimensions of review that users and carers contributed to
- impact of this on the review
- user and carer views about the process
- any feedback to users and carers about the impact of their contribution on the review.

Evaluation of other review processes

309. In order to contribute to methodological development, review teams might

also like to consider including any comment they have on other processes of the review. Possible examples include:

- reflections on quality appraisal of included studies
- reflections on synthesis of studies
- reflections on other processes (should be clearly defined).

310. Review teams may be invited to discuss these elements with SCIE separately, with a view to building on any new methodological developments or understanding through contributing additional written work, presentation at methods discussion forums and so on.

Software to assist the management of the review process

311. A systematic review is a major piece of research in its own right and requires careful planning, management and consideration of all the issues discussed in these guidelines. Software can be used to assist the different stages of a review and the transparency of that process. For example, software can be used to support the following:

- bibliographic capture and management: bibliographic software such as Endnote, Reference Manager, Procite. These packages are powerful at managing bibliographic data but tend to have relatively few fields, and do not offer functionality for coding and management of other data in the review process.
- data extraction and data management: any relational database.
- quantitative analysis and synthesis: statistical software such as Stata, SPSS.
- qualitative synthesis: software for thematic analysis such as NVivo, Atlas.ti or any other software that allows searching and reorganisation of text extracts.

312. The use of software in the latter category (NVivo, etc) involves exporting the textual material into the software package and using it to assist the identification and population of themes or categories. Working with primary data, such as interview transcripts, in this way may be very time-consuming, but use of such packages to organise and synthesise the contents of more concise research papers may be more rewarding. SCIE's Report 9 (Fisher, Qureshi et al. 2005) gives some examples of this process (see pages 32–34 and Appendix D)[4]. For information on computer-assisted qualitative data analysis, see the CAQDAS website (caqdas.soc.surrey.ac.uk/).

313. In addition, there are some web-based specialist software packages designed to support the process of conducting reviews. These include:

- EPPI-Reviewer (from the EPPI-Centre at Institute of Education) (Brunton 2006): for bibliographic capture, screening, data coding, quantitative and qualitative synthesis, review reporting and searchable databases of studies;
- Review Manager (RevMan) (from the Cochrane Collaboration) (Cochrane 2008): for organising and managing Cochrane style reviews. Statistical meta-analysis is included in this package;
- SUMARI (from the Joanna Briggs Institute): a suite of modules (some still in development) for supporting the stages of the review process including different types of analysis and synthesis. Access via http://www.joannabriggs.edu.au/services/sumari.php;

- Systematic Reviews SRS (from TrialStat) (TrialStat 2007): for screening and coding of studies.

Of the above list, RevMan is available free of charge and can be downloaded via the Cochrane Collaboration's website. The other packages are available on request, and in most cases at some cost, from the relevant organisations.

References

Boaz, A. and R. Pawson (2005). "The perilous road from evidence to policy: five journeys compared." Journal of Social Policy 34(2): 175–194.

Braye, S. and M. Preston-Shoot (2005). "Emerging from the shadows? Service user and carer involvement in systematic reviews." Evidence and Policy 1(2): 173–194.

Britten, N., R. Campbell, et al. (2002). "Using meta-ethnography to synthesise qualitative research: a worked example." Journal of Health Services Research & Policy 7(4): 209–215.

Brunton, T. (2006). EPPI-Reviewer 3.0: analysis and management of data for research synthesis. EPPI-Centre software, London, Social Science Research Unit, Institute of Education, University of London.

Campbell, R., P. Pound, et al. (2003). "Evaluating Meta-ethnography: a synthesis of qualitative research on lay experiences of diabetes and diabetes care." Social science & medicine 56: 671–684.

Carr, S. and E. Coren (2007). Collection of examples of service user and carer participation in systematic reviews. London, SCIE.

Clapton, J., D. Rutter, et al. (2009). SCIE Systematic mapping guidance (Draft). London, SCIE.

Clark, M., J. Glasby, et al. (2004). "Cases for change: User involvement on mental health services and research." Research Policy and Planning 22: 31–38.

Clarke, M. (2004). "Doing new research? Don't forget the old. Nobody should do a trial without reviewing what is known " Public library of science medicine 1: 100–102.

Cochrane (2008). Review Manager (RevMan) version 5 (computer program). Copenhagen, Nordic Cochrane Centre, Cochrane Collaboration.

Coren, E. and M. Fisher (2006). The conduct of systematic research reviews for SCIE knowledge reviews. London, SCIE.

CRD (2007). NHS Economic Evaluation Handbook. York, Centre for Reviews & Dissemination, University of York.

CRD (2009). Systematic Reviews: CRD's guidance for undertaking reviews in health care. York, Centre for Reviews & Dissemination, University of York.

Dickersin, K. (1997). "How important is publication bias? A synthesis of available data." AIDS Education and Prevention 9: 15–21.

Dickson, K. and D. Gough (2009). Supporting people in accessing meaningful work: Recovery approaches in communitybased adult mental health services. London, SCIE.

Dixon-Woods, M., S. Agarwal, et al. (2004). Integrative approaches to qualitative and quantitative evidence. London, Health Development Agency.

Dixon-Woods, M., S. Bonas, et al. (2006). "How can systematic reviews incorporate qualitative research? A critical perspective." Qualitative research 6(1): 27–44.

Dixon-Woods, M., D. Cavers, et al. (2006). "Conducting a critical interpretive synthesis of the literature on access to healthcare by vulnerable groups " BMC Medical Research Methodology 6(1): 35.

Drummond MF, Jefferson TO, et al. (1996). "Guidelines for authors and peer reviewers of economic submissions to the BMJ." 313 275–283.

Drummond, M. F., M. J. Sculpher, et al. (2005). Methods for the Economic Evaluation of Health Care Programmes (3rd edition). Oxford, Oxford

University Press.
Egger, M., P. Jüni, et al. (2001). Importance of different sources of bias in systematic reviews of controlled trials: systematic review of empirical studies. 9th Annual Cochrane Colloquium, Lyon, France.
Egger, M., T. Zellweger-Zahner, et al. (1997). "Language bias in randomised controlled trials published in English and German." Lancet 350: 326–329.
EPPI-Centre (2006). EPPI-Centre methods for conducting systematic reviews London, EPPI-Centre, Social Science Research Unit, Institute of Education, University of London. .
EPPI -Centre (2005). Standard stages of a systematic review in EPPI-Centre: EPPI-Centre Systematic Research Synthesis Workshop Manual. London, EPPI-Centre, Institute of Education, London University.
Fisher, M., H. Qureshi, et al. (2005). Using qualitative research in systematic reviews: older people's views of hospital discharge. London, SCIE.
Fisher, M., H. Qureshi, et al. (2006). Using qualitative research in systematic reviews: Older people's views of hospital discharge. London, SCIE.
Francis, J. (forthcoming (2010)). SCIE's approach to economic evaluation in social care. London, Social Care Institute for Excellence.
Gough, D. (2004). Systematic Research Synthesis. Evidence-based practice in education. G. Thomas and R. Pring. Buckingham, Open University Press**:** 44–62.
Gough, D. and D. Elbourne (2002). "Systematic research synthesis to inform policy, practice and democratic debate." Social Policy and Society 1(3): 225–236.
Gough, D., D. Kiwan, et al. (2003). A systematic map and synthesis review of the effectiveness of personal development planning for improving student learning. London, Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre)**:** 1–131.
Greenhalgh, T. and R. Peacock (2005). "Effectiveness and efficiency of search methods in systematic reviews of complex evidence: audit of primary sources " BMJ: p bmj.38636.593461.593468.
Harden, A. (2004). A review of tools for assessing the quality of qualitative studies: implications for systematic reviews. 12th Annual Cochrane Colloquium: Bridging the Gaps. Ottawa, Canada.
Higgins, J. and S. Green, Eds. (2006). Cochrane Handbook for Systematic Reviews of Interventions The Cochrane Library. Chichester, Wiley.
Hopewell, S., M. Clarke, et al. (2004). Trials reported as abstracts and full publications: how do they compare? 2th Annual Cochrane Colloquium: Bridging the Gaps, Ottawa, Canada.
Jefferson T, Demicheli V, et al. (2000). Elementary Economic Evaluation in Health Care (2nd Edition). London, BMJ Books.
Levin, E. (2004). Involving service users and carers in social work education. London, SCIE.
Macdonald, G. (2003). Using systematic reviews to improve social care London, SCIE.
Marsh, P. and M. Fisher (2005). Developing the evidence base for social work and social care practice. London, SCIE.
National Institute for Health & Clinical Excellence (2009). Methods for the development of NICE public health guidance (2nd edition). London, NICE.
Newbigging, K., M. McKeown, et al. (2007). Mtetezi – Developing mental health advocacy with African and Caribbean men. London, SCIE.

NICE (2009). Methods for the development of NICE public health guidance (2nd edition). London, National Institute for Health & Clinical Excellence (NICE)
Noyes, J., J. Popay, et al. (2008). Chapter 20: Qualitative research and Cochrane Reviews Cochrane Handbook for Systematic Reviews of Interventions. J. P. T. a. G. S. Higgins and (eds), The Cochrane Collaboration.
Pawson, R., A. Boaz, et al. (2003). Types and quality of knowledge in social care London, SCIE.
Pawson, R., T. Greenhalgh, et al. (2005). "Realist review - a new method of systematic review designed for complex policy interventions." Journal of Health Services Research & Policy 10(3 Supplement): 21–34.
Petticrew, M. and H. Roberts (2006). Systematic Reviews in the social sciences: a practical guide. Oxford, Blackwell.
Pignotti, M. and J. Mercer (2007). "Holding Therapy and Dyadic Developmental Psychotherapy Are Not Supported and Acceptable Social Work interventions: a systematic research synthesis revisited." Research on Social Work Practice 17: 513.
Popay, J., H. Roberts, et al. (2006). Guidance on the conduct of narrative synthesis. Lancaster, University of Lancaster.
Popay, J., H. Roberts, et al. (2004). "Developing guidance on the conduct of narrative synthesis in systematic reviews." Journal of epidemiology and community health 59(Supplement 1:A7).
Rose, D., Fleischmann, P. et al. (2002). Review of consumers' perspectives on electro convulsive therapy. London, Institute of Psychiatry.
Rutter, D. (2009). Practice Enquiry Guidelines: A framework for SCIE commissioners and providers. London, SCIE.
Rutter, D. (Forthcoming). Systematic Reviews in Social Care and Social Work Research. London, School for Social Care Research, PSSRU at LSE.
Sandelowski, M. and J. Barroso (2007). Handbook for synthesizing qualitative research. New York, Springer Publishing Co.
Save the Children (2004). So you want to involve children in research? A toolkit supporting children's meaningful and ethical participation in research relating to violence against children. Stockholm, Save the Children.
Sefton, T., S. Byford, et al. (2002). Making the most of it: economic evaluation in the social welfare field. York, Joseph Rowntree Foundation.
Sharif, N., W. Brown, et al. (2008). The extent and impact of depression on BME older people and the acceptability, accessibility and effectiveness of social care provision. London, SCIE.
Sheldon, T. A., G. H. Guyatt, et al. (1998). "Getting research findings into practice: when to act on the evidence." BMJ 317: 139–142.
Shemilt I, Mugford M, et al. (2008). Incorporating economics evidence. Cochrane Handbook for Systematic Reviews of Interventions Version 5.0.0 (updated February 2008). Higgins JPT and G. S, The Cochrane Collaboration,.
Spencer, L., J. Ritchie, et al. (2003). Quality in qualitative evaluation: a framework for assessing research evidence. London, Government Chief Social Researcher's Office.
Staley, K. (2009). Exploring Impact: Public involvement in NHS, public health and social care research. Eastleigh, INVOLVE.
Taylor, I., E. Sharland, et al. (2006). The learning, teaching and assessment of partnership work in social work education London, SCIE.
Thomas, J. (2002). EPPI-Reviewer© 2.0 (Web edition). London, EPPICentre, Social

Science Research Unit, London, Institute of Education, University of London.
Treseder, P. (1996). Empowering children and young people: a training manual. London, Children's Rights Office/Save the Children.
Trevithick, P., S. Richards, et al. (2004). Teaching and learning communication skills in social work education. London, SCIE.
TrialStat (2007). TrialStat SRS 4.0 (computer program). Ottawa, Canada, TrialStat.
Young, C. and R. Horton (2005). "Putting clinical trials into context " The Lancet 366: 107-108.

Appendix 1: SCIE systematic research review report structure (August 2010)

Acknowledgements

List of abbreviations

Potential conflicts of interest

Contents page

Executive summary (subheadings to be specified so summary is structured)

Website material (in summary; optional)

Background

Aims and objectives of research review

Methods (This section may be summarised, with items below presented in appendices)

Criteria for inclusion of studies in review

Search strategy

- Bibliographic sources
- Web-based sources
- Regulatory/statutory sources
- Sources arising from practice survey
- User identified sources
- Studies identified from previous systematic reviews
- Personal communication
- Author tracing
- Other sources

Other methodological processes

- User and stakeholder involvement

- Screening of studies for inclusion in the review
- Retrieval of full texts
- Keywording and data extraction
- Quality appraisal (QA) of included studies
- Data synthesis and analysis

Findings

Thematic overview of studies included

Description of studies (in depth review)

Quality of included studies (including evidence tables)

Data analysis and synthesis

Economic, cost and opportunity cost data

Discussion of research review

Limitations

Gaps in evidence

Overall quality of evidence

Conclusions

General implications of the review

Implications for practice (to be used for analytical report)

Evaluation of review processes (optional)

References

Appendices

Note to Appendix 1: How the report incorporates the report of the practice enquiry is not specified here, with the intention of allowing flexibility. Authors should consult *Practice enquiry guidelines* (Rutter 2009) for the required headings**.**

Appendix 2: Example of inclusion criteria framework for screening of papers identified through searching

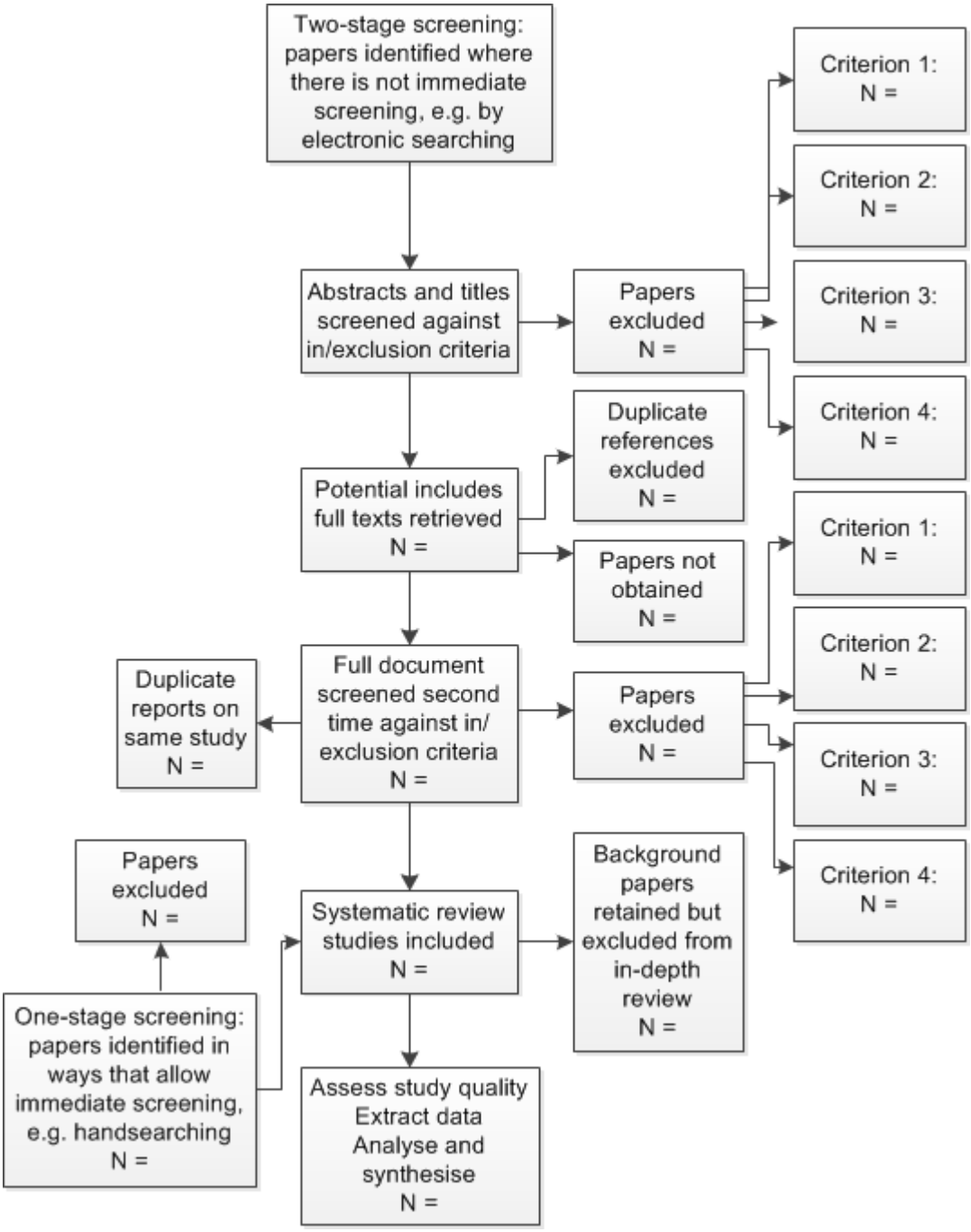
Inclusion/exclusion criteria template for review of extra care housing for older people
06 November 2009. V. 1

Inclusion / exclusion criteria		**Guidance**	**Comments and queries**
1	**EXCLUDE: date** of publication before 2000	Exclude if published before 2000	
2	**EXCLUDE: language** not English		
3	**EXCLUDE: publication type** not journal or research report	Exclude books, dissertation abstracts, trade magazines, policy and guidance	Include grey literature
4	**EXCLUDE: location** not in UK	Must be UK based study	
5	**EXCLUDE: population** adults 65 and over	Must include adults over 65 years who are living in housing with care or extra care	
6	**EXCLUDE scope** no intervention or non-social interventions. No outcomes or outcomes focusing mainly or exclusively on care givers, families, friends	Not about housing with care or extra care for adults over 65 years[1] Must include analysis of health outcomes or outcomes impacting on the socio-economic determinants of health	Include outcomes: physical or mental health; social or well-being; service use; or socio-economic determinants of health

[1] **CSIP definition:**
It is first and foremost a type of housing. It is a person's individual home. It is not a care home or hospital and this is reflected in the nature of its occupancy through ownership, lease or tenancy.
It is accommodation that has been specially designed, built or adapted to facilitate the care and support needs that its owners/tenants may have.
Access to care and support is available 24 hours per day either on site or by call.

	or professional		
7	**EXCLUDE: research type** not empirical research	Must be empirical research or evaluative or synthesis (of empirical studies) or review	Include randomised experimental and controlled experimental studies. Comparative or longitudinal studies, evaluation studies or reviews citing evidence. Include case studies Exclude descriptive studies, editorial, commentary, opinion piece, vignette, briefing or ephemera. Can include qualitative studies if they include service user views
8	**EXCLUDE: insufficient details** to identify reference or make an informed decision		
9	**QUERY:**	Not sure	Pending decision by another worker or clarification by full text
10	**INCLUDE:**	Not excluded by above	

Appendix 3: Filtering of papers from searching to inclusion in systematic review



Adapted from *Structure for a review report*. EPPI-Centre, Social Science Research Unit, Institute of Education, University of London. London 2004

Appendix 4: Sample data extraction form (empirical papers)

Note: Data extraction tools are designed to reflect specific topics and review questions and should be piloted and amended. The following example is an illustration showing some probable fields for inclusion. Some fields can show a limited range of possible options.

Title of review

Publication details	
Author(s)	
Year	
Title of paper	
Title of publication (e.g. book, journal, report)	
Vol., Issue, Pages	
Reference number	

Nature of the study	
Aims of the study	
Any further research questions addressed	
Country in which the study was done	
User/carer stakeholder involvement in design/ conduct of the study	
Study site(s): describe setting (e.g. rural/urban), context and details of key characteristics (e.g. of organisation)	
Target population (e.g. adults with learning disability, children in foster care, social work students)	
Sampling/recruitment procedures (any info re: age, ethnicity, gender)	
Number of participants/sample size	
Details of any theory referred to or conceptual models used	
Characteristics of participants (e.g. practitioners, types of job roles, age, sex, gender, ethnicity, type of policy makers)	
Study design	

Nature of control group, if any	
Study date and duration	
Methods of data collection and who collected by (e.g. researcher/practitioner	
Any research tools used	
Stakeholder views reported	
Analysis used	

Nature of intervention (where applicable)

Intervention?	
Name of intervention	
Aims of intervention	
Location/setting	
Target population (any info re: age, ethnicity, gender)	
Who provided the intervention (e.g. social worker, volunteer)?	
How was the intervention/service delivered (e.g. group work, home visits, teaching module)?	

How and why was intervention developed (e.g. reasons for development, any 'needs assessment' or involvement of target population)	
Implementation issues identified	
Any theoretical framework drawn on to develop the intervention	

Outcomes and results

Outcomes measures used	
Details of outcomes/findings	
Cost data reported	
Any details of strengths/limitations of the study (including diversity of sample)	
Author's conclusions	

Appendix 5: Guidelines for service user and/or carer participation in systematic reviews

Introduction

SCIE is politically committed to service user and/or carer participation in all aspects of its organisation and work. Therefore, as part of SCIE's role in knowledge production for social care, innovative participative approaches to systematic reviewing are being resourced and encouraged.

By undertaking and recording service user and carer participation in the systematic review element of SCIE knowledge reviews, commissionees can make a valuable contribution to developing new, inclusive methodologies in secondary research.

Principles and practice

Systematic reviewing is a comparatively new practice within social care research. Service user and carer participation in this particular research activity are not common and the conceptual and practical issues involved remain relatively under-explored. However, SCIE's view is that systematic reviews will be improved by participation by users, carers and practitioners, as well as researchers. In addition, service user and carer participation has been shown to impact positively on the quality and relevance of qualitative research in health and social care (Staley 2009).

The evidence about involving service users and carers is still emerging, and therefore these guidelines will be periodically reviewed as more evidence of good practice emerges. They are designed to help commissionees think about some of the issues and options concerning service user and carer participation in systematic reviewing. SCIE has commissioned reports of user participation in reviews as examples of possible good practice models (Carr and Coren 2007). This report will be updated as new examples emerge.

While there are fundamental principles for participation in general that must be adhered to (Levin 2004), current knowledge suggests that there is no single, failsafe solution to service user and/or carer participation in the systematic review process, although thoughtful and motivated approaches can add value to research and research reviews in the most challenging of fields (Save the Children 2004).

There is a clear principle that 'participation needs to be appropriate to its context and to take account of the issues involved, the objectives sought and the… [service users and/or carers] who make up the target group' (Treseder 1996). This would include the option for a systematic review to be carried out entirely by service user researchers in a user-controlled project team (Rose, Fleischmann et al. 2002).

Diversity

SCIE aims to become a leading organisation in the promotion of equality and diversity and to contribute to social justice through its work. In order to achieve this aspiration, SCIE adopted a single equality scheme (SES) in 2009 based on the single equality duty that all public bodies will be required to have under the Equality Act 2010. As an independent charity SCIE is not required to have an SES but we have decided that it is good practice to do so. The SES sets out the actions SCIE will take to challenge discrimination, promote equality and ensure that our core business is inclusive in terms of equality and diversity.

This means that SCIE's products and services must address and integrate knowledge of equality and diversity and be inclusive of the perspectives identified in the SES. These are: ethnicity, gender, disability, sexual orientation, age, caring responsibilities, religion, belief or faith and general human rights.

Review teams will therefore be expected to provide evidence that they have incorporated the perspectives of these groups. This is especially important when the review topic is considered particularly pertinent to people from these communities (Newbigging, McKeown et al. 2007). Where possible, there should be representation of the relevant group/communities within the review team and/or advisory groups.

Service users and carers may come from any of the groups identified by the SES. These groups are often marginalised, under-represented or stigmatised. Review teams must consider this when planning the review and take steps to facilitate involvement as appropriate. It is also essential to bear in mind when recruiting service users and carers for systematic reviews, that the process can sometimes favour some service users and carers over others. Attempts should always be made to ensure that selection incorporates representative perspectives.

Review teams must consider whether they can incorporate the perspectives of user and carer groups and those covered by the SES. There may not be available research literature that covers these views on the specific topic. It is therefore expected that searches include grey literature as well as user testimony to capture these perspectives. Furthermore, an important dimension of quality assessment of included studies is the section that considers user involvement in design of primary research.

Developing systematic review methodology

Traditional methods of systematic reviewing can function as inflexible scientific procedures that are potentially exclusionary and alienating, both in terms of participation and the type of research included. Developing a more open and creative approach to systematic review techniques, without compromising academic rigour, will allow for greater degrees of empowering practice. There are potential opportunities for participation at each of the standard stages of a systematic review at which key decisions are made:

- selection of topic (interventions, populations)

- setting the research question and conceptual framework and developing the protocol (including outcome measures)
- defining relevant studies (inclusion/exclusion criteria)
- suggesting additional, especially grey, literature
- searching exhaustively (search strategy)
- describing the key features of studies (data extraction form)
- assessing their quality (quality appraisal criteria)
- synthesising findings across studies (e.g. themes to dominate analysis)
- drawing conclusions
- communication and engagement. (EPPI -Centre 2005)

It is up to the project team to empower service user and/or carer team members or project participants to make fully informed choices about levels of involvement in the review process. While it may be more likely for service users and/or carers to want to be involved in question setting, protocol development, analysis and drawing conclusions, people should have the opportunity to choose. Being transparent is vital.

This key principle on choice identified for children and young people is relevant for the participation of any service users and/or carers:

> 'It is important to keep in mind that children may not want to be involved at this stage of the research. They may think that secondary research is boring …The important thing is not that children do what you want them to do but that they are able to make an informed decision about what is and is not of interest to them. Once you have this information, it is much easier to work with them to explore options and make a plan for their involvement.' (Save the Children 2004) page 21.

Illustrative examples

Although there are few worked examples of service user and/or carer participation in the systematic review process, particularly as regards older people, the following give an idea of how three different approaches have worked.

Cases for change (Clark, Glasby et al. 2004)

Cases for change is a narrative review of adult mental health services, published by the National Institute for Mental Health England (NIMHE) in January 2003. A researcher with lived experience of using mental health services was employed as

part of the core project team and was also a member of the project 'expert panel'. Drawing on their direct experience, the project team members recorded some key messages about user involvement in secondary research.

- Having a service user as a core part of the research team ensures a user perspective is included in every aspect of the research.
- There is no single 'right answer' – rather a series of different stakeholders with different views about how best to reform mental health services. This makes it all the more important that a user perspective is included in these debates.
- Researching alongside service users can challenge the assumptions, language and attitudes of other research team members – as health and social care professionals, two out of three of the researchers involved in this study have worked in agencies that have contributed (directly or indirectly) to the negative experiences of the third team member.
- User involvement can support service users to return to work, develop new skills and boost confidence and self-esteem.
- Do not employ a single service user as a researcher – having more than one user on the team gives greater scope for peer support and helps spread the workload.
- Ensure that everyone involved in the study is aware of the importance of user involvement and is committed to it. This includes members of the expert panel as well as support services such as pay roll and human resources.
- Seek financial/welfare rights advice before starting so that payments to user researchers do not damage the benefits they may be receiving.
- Above all, keep talking and keep trying – user involvement is difficult and we do not always get it right, but the benefits far outweigh the limitations and meaningful involvement in research is something worth striving for.

Review of consumers' perspectives on electro convulsive therapy (ECT) (Rose, Fleischmann et al. 2002)

This systematic review was carried out by two user researchers and two clinicians in a user-controlled project team based within the Service User Research Enterprise (SURE) at the Institute of Psychiatry. The project also had a reference group comprised of user representatives of organisations with an interest in ECT, some of who had experienced this particular treatment.

Teaching, learning and assessment of law in social work education (Braye and Preston-Shoot 2005)

This SCIE-commissioned knowledge review included a systematic review in which both service users and carers participated. The project team's approach was to use mixed stakeholder conferences with workshops informed by group work theory.

> 'The two conferences [served] different purposes at key stages of the research. The initial conference would have two objectives: first, to seek views on the content and process of the study, finalising the research questions and concluding the protocol; second, to consider participants' perspectives on law in social work education, and on law in social work practice. The second conference would also have two objectives: first, to evaluate the data obtained from the systematic literature review and practice survey, reviewing emerging findings and making recommendations for the final report; second, to consider the broader implications for education, practice and subsequent research. Participants became an influential reference group to which the researchers presented their plans and later their findings for review. Participants also actively contributed their perspectives on the relationship between law and social work, how they saw social workers practising within the legal framework, and what this means for student learning.' (Braye and Preston-Shoot 2005) page 180.

Service users and carers were actively recruited from user-led organisations and were the majority stakeholder group at the events. Participants also had the option to submit their contributions in other ways. The project team was careful not to exclude people through inflexible adherence to any particular format for involvement. The creation of a culture of feedback and transparency was seen as vital.

Mtetezi: Developing mental health advocacy with African and Caribbean Men (Newbigging, McKeown et al. 2007)

SCIE commissioned the Centre for Ethnicity and Health at the University of Central Lancashire to undertake a knowledge review to identify what supports good practice in the provision of mental health advocacy services for African and Caribbean men.

The Centre had long established links with black and minority ethnic (BME) communities and black voluntary sector organisations. As a consequence, an infrastructure had been generated for the support and involvement of health and social care service users in all aspects of the faculty's work, including research projects.

A consortium of groups became partners on the Mtetezi project and they were involved right at the start in order to define their own participation. African and Caribbean men with experience of using mental health services who became members of the project team were also members of the project steering group.

The project team comprised three University staff, two people from each partner

organisation and three service users. In relation to the systematic review element, service users, largely members of the Project Team, were involved in:

- defining the scope and parameters of the review
- identifying literature
- identifying relevant outcomes
- synthesising the findings from the systematic review and the practice survey
- commenting on the final report, including presentation and distribution
- disseminating the findings of the review at local and national events.

The authors of the account on the user involvement process in the systematic review element of the Mtetezi Project noted that:

> 'Service user involvement in the systematic review element could have been strengthened by a clearer ambition for involvement in this from the outset. This would have meant providing clear and accessible information about what is involved in a systematic review and how service users could become involved; identifying development needs of service users in relation to involvement and the provision of specific training and/or support to meet these needs. From the meeting held with service users to reflect on the process, it was also suggested that mapping the abilities and development needs of service users would be welcome as it provides clarity about the basis for engagement.' (Newbigging, McKeown et al. 2007) page 12.

Appendix 6: Journals indexed for Social Care Online

Journals that are listed in their entirety on Social Care Online

A life in the day
Administration in social work
Adoption and fostering
Adoption quarterly
Affilia: journal of women and social work
Asia pacific journal of social work and development
Australian social work
British journal of social work
Canadian social work review
Child abuse and neglect
Child abuse review
Child and adolescent social work journal
Child and family social work
Child and youth care forum
Child care in practice
Child maltreatment
Child welfare
Children and schools (former title: Social work in education)
Children and society
Children and youth services review
Clinical social work journal
Clinical supervisor, the
Community care
Dementia: the international journal of social research and practice
Ethics and social welfare
European journal of social work
Groupwork
Health and social care in the community
Health and social work
Housing, care and support
Indian journal of social work
International journal of social welfare
(former title: Scandinavian journal of social welfare)
International social work
Issues in social work education
Journal of adult protection
Journal of applied research in intellectual disabilities
(JARID) (former title: Mental handicap research)
Journal of children's services
Journal of ethnic and cultural diversity in social work) (former title: Journal of multicultural social work)
Journal of evidence based social work
Journal of family social work
Journal of gay and lesbian social services
Journal of gerontological social work
Journal of HIV/AIDS and social services

Journal of human behavior in the social environment
Journal of integrated care) (former titles:MCC: Building knowledge for integrated care)
Journal of religion and spirituality in social work: social thought) (former title: Social thought)
Journal of social policy and social work
Journal of social service research
Journal of social work
Journal of social work education
Journal of social work in disability and rehabilitation
Journal of social work practice
Journal of social work practice in the addictions
Journal of teaching in social work
Journal of technology in human services) (formerly: Computers in human services)
Learning disability review
Mental health review
Mental health today
New technology in the human services
Practice: a journal of the British Association of Social Workers
Probation journal
Professional social work
Psychoanalytic social work
Qualitative social work
Research on social work practice
Research policy and planning
Scottish journal of residential child care
Smith college studies in social work
Social policy and society: a journal of the Social Policy Association
Social service review
Social work
Social work and social sciences review
Social work and society
Social work education
Social work in health care
Social work in mental health
Social work now: the practice journal of child, youth and family
Social work research (former title: Social work research and abstracts)
Social work with groups
Therapeutic communities
Working with older people
Youth justice: journal of National Association For Youth Justice

Appendix 7: Sample report of search strategy

Sample report of search strategy

Databases
The choice of databases to search was determined by SCIE's guidance on systematic reviewing as at 31 March 2006. The databases included in the search are not necessarily those currently recommended, but the strategy is included to illustrate process and recording.

Database	Database name in full
ASSIA	Applied Social Sciences Index and abstracts
BEI	British Education Index
CareData	
CINAHL	Cumulative Index to Nursing and Allied Health Literature
Cochrane	
C2-SPECTR	Campbell Collaboration Social, Psychological, Educational and Criminological Trials Register
Dissertation Abstracts	
ERIC	Educational Resources Information Center
HMIC	Health Management Information Consortium
IBSS	International Bibliography of the Social Sciences
Medline	
PsycINFO	
SIGLE	System for Information on Grey Literature in Europe
Social Services Abstracts	
Social Work Abstracts	
Sociological Abstracts	
SSCI	Social Sciences Citations Index

ZETOC and Wilson Social Science Abstracts were not searched as initial investigation suggested that the amount of useful material they would provide would not justify the time taken to search them. It was also decided to use the Social Science Citations Index rather than Social Sci Search, as suggested in the guidance, as it has similar coverage and was felt to be more useful. An attempt was made to search C2-SPECTR, but initial trialling revealed no relevant material, so the full search strategy was not used.

Handsearching
The Journal of Social Work Education and the British Journal of Social Work were handsearched.

Website searching
The following websites were searched in the course of the review:
www.sosig.ac.uk/social_welfare/
brs.leeds.ac.uk/~beiwww/beirc.htm
sumsearch.uthscsa.edu/cgi-bin/
www.jisc.ac.uk/index.cfm?name=rg_social_main
edina.ac.uk/
www.policyhub.gov.uk/
No relevant documentation in addition to that which had been obtained by the other methods was discovered through this approach.

Results
The table below shows the number of citations obtained by the search strategies reported above: before any screening took place, after initial screening took place, and when the inclusion criteria were further refined leading to more citations being screened out:

Database	Total citation retrieved by search strategy*	Total citations included after initial screening*	Total citation including after refining inclusion criteria
ASSIA	248	90	42
BEI	9	0	0
CareData	402	38	27
CINAHL	862	95	68
Cochrane	9	0	0
Dissertation Abstracts	77	4	4
ERIC	101	10	2
HMIC	109	31	23
IBSS	100	5	3
Medline	177	85	46
PsycINFO	228	62	23
SIGLE	94	16	14
Social Services Abstracts	792	138	63
Social Work Abstracts	348	19	10
Sociological Abstracts	94	5	3
SSCI	1004	40	20
Handsearching	–	–	4
Identified from bibliographies	–	–	33
Website searching	–	–	0

**Because of the numbers involved, these figures have not been filtered to take duplicates into account.*

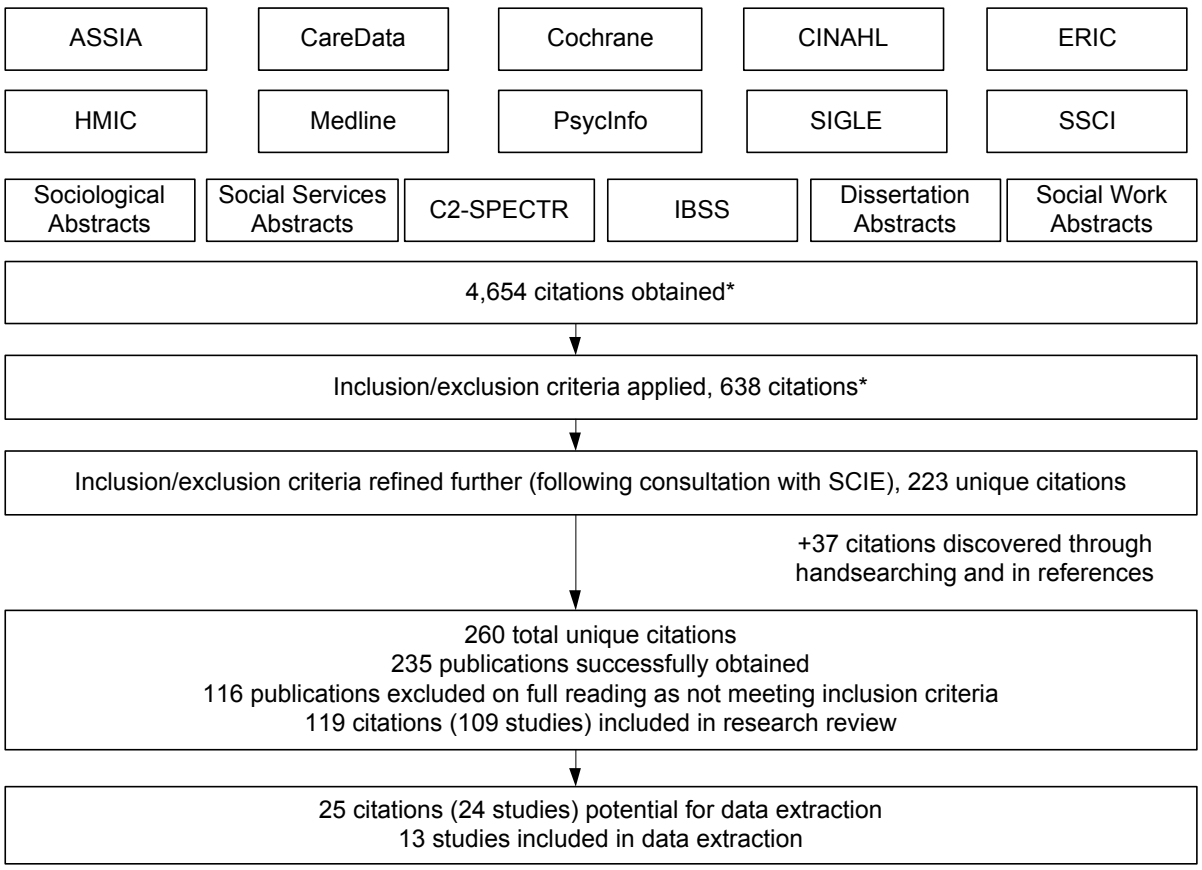
The table below shows the breakdown of the total citations into unique and duplicate records selected on the basis of abstracts, once the screening and refinement of inclusion criteria had taken place. Note that the first row of total figures gives the sum of the citations found across all the databases, and therefore counts duplicate citations each time they appear. The row below gives the number of actual citations found, filtering out duplicate entries.

Database	Total citations	Duplicates	Unique citations
ASSIA	42	33	9
BEI	0	0	0
CareData	27	21	6
CINAHL	68	24	44
Cochrane	0	0	0
Dissertation Abstracts	4	0	4
ERIC	2	0	2
HMIC	23	13	10
IBSS	3	2	1
Medline	46	21	23
PsycINFO	23	18	5
SIGLE	14	3	11
Social Services Abstracts	63	40	23
Social Work Abstracts	10	9	1
Sociological Abstracts	3	3	0
SSCI	20	13	7
Total	**348**	**200**	**146**
Total when each duplicate is counted only once	**260**	**114**	**146**

The final figures for references which we obtained or sought to obtain are as follows:

Outcomes for identifies references	Number
Included in research review (keyworded)	119
Excluded	116
Unable to obtain	25
Total	**260**
Data extracted	125

Flowchart of research review process



Appendix 8: Data extraction tool for economic studies

Resource use coding tool

Section A: Intervention and control program

A.1 Name of intervention program	A.1.1 Details
A.2 Name of control program	A.2.1 Details A.2.2 Not applicable (no control program) A.2.3 People with mental health problems (unspecified)
A.3 Please state which service provider	A.3.1 Community mental health team A.3.2 Voluntary/Not-for-Profit agency A.3.3 Independent/Private agency A.3.4 Statutory agency (i.e. Social Services, NHS Mental Health Trust, Primary Care Trust) A.3.5 User/peer/self-advocacy agency A.3.6 Further education/higher education institution A.3.7 Commercial business A.3.8 Social firm/Cooperative A.3.9 Occupational health A.3.10 Jobcentre plus (or equivalent employment agency) A.3.11 Joint provider (please describe) A.3.12 Other (please specify)
A.4 What setting is the intervention delivered?	A.4.1 Not stated A.4.2 Details

A.5 Methods to identifying potential participants (sampling frame?)	A.5.1 Details of intervention group A.5.2 Details of control group
A.6 Attrition/Drop-out of intervention program	A.6.1 Explicitly stated (please specify) A.6.2 Implicit (please specify) A.6.3 Not stated
A.7 Attrition/Drop-out of control program	A.7.1 Explicitly stated (please specify) A.7.2 Implicit (please specify) A.7.3 Not stated
A.8 Attendance rate	A.8.1 Details of Intervention group A.8.2 Details of control group A.8.3 Not stated
A.9 Last follow-up	A.9.1 N/A (No follow up) A.9.2 3 months A.9.3 6 months A.9.4 12 months A.9.5 18 months A.9.6 Unclear A.9.7 2-3 years
A.10 Detail of intervention delivery	A.10.1 Individual intervention A.10.2 Group based intervention A.10.3 Mixed intervention (please describe) A.10.4 Delivery not specified

A.11 Details of control program delivery	A.11.1 Individual intervention A.11.2 Group based intervention A.11.3 Mixed intervention (please describe) A.11.4 Delivery not specified
A.12 Group size	A.12.1 Details of intervention group A.12.2 Details of control group
A.13 Duration of intervention program (overall)	A.13.1 Not stated A.13.2 Unclear A.13.3 One day or less (please specify) A.13.4 1 day to 1 week (please specify) A.13.5 1 week (and 1 day) to 1 month (please specify) A.13.6 1 month (and 1 day) to 3 months (please specify) A.13.7 3 months (and 1 day) to 6 months (please specify) A.13.8 6 months (and 1 day) to 1 year (please specify) A.13.9 1 year (and 1 day) to 2 years (please specify) A.13.10 2 years (and 1 day) to 3 years (please specify) A.13.11 3 years (and 1 day) to 5 years (please specify) A.13.12 More than 5 years (please specify) A.13.13 Other (please specify)
A.14 Duration of control program (overall)	A.14.1 Not applicable (No control group) A.14.2 Not stated A.14.3 Unclear

	A.14.4 One day or less (please specify) A.14.5 1 day to 1 week (please specify) A.14.6 1 week (and 1 day) to 1 month (please specify) A.14.7 1 month (and 1 day) to 3 months (please specify) A.14.8 3 months (and 1 day) to 6 months (please specify) A.14.9 6 months (and 1 day) to 1 year (please specify) A.14.10 1 year (and 1 day) to 2 years (please specify) A.14.11 2 years (and 1 day) to 3 years (please specify) A.14.12 3 years (and 1 day) to 5 years (please specify) A.14.13 more than 5 years (please specify) A.14.14 Other (please specify)
A.15 Number of intervention sessions	A.15.1 Not stated A.15.2 Unclear A.15.3 1 A.15.4 2-5 (please state) A.15.5 5-10 (please state) A.15.6 10-15 (please state) A.15.7 20+ (please state) A.15.8 Other (please state)
A.16 Number of control sessions	A.16.1 Not applicable (no control group) A.16.2 Not stated A.16.3 Unclear A.16.4 1

	A.16.5 2-5 (please specify) A.16.6 5-10 (please specify) A.16.7 10-15 (please specify) A.16.8 20+ (please specify) A.16.9 Other (please specify)
A.17 Duration of intervention sessions	A.17.1 Not stated A.17.2 30 minutes or less (please specify) A.17.3 30 minutes -1 hour (please specify) A.17.4 1-2 hours (please specify) A.17.5 2-4 hours (please specify) A.17.6 4-6 hours (please specify) A.17.7 6+ hours (please specify) A.17.8 Other (please specify)
A.18 Duration of control sessions	A.18.1 Not applicable (no control program) A.18.2 Not stated A.18.3 30 minutes or less (please specify) A.18.4 30 minutes -1 hour A.18.5 1-2 hours A.18.6 2-4 hours A.18.7 6+hours A.18.8 One day A.18.9 Other

A.19 Time between intervals	A.19.1 Not specified A.19.2 Details

Section B: Practitioner information

B.1 Main type of practitioner providing the intervention program (tick one)	B.1.1 Not stated B.1.2 Unclear B.1.3 Counsellor B.1.4 Peer B.1.5 Psychologist B.1.6 Researcher B.1.7 Social worker B.1.8 Teacher/lecturer B.1.9 Occupational therapist B.1.10 Training and vocational specialist B.1.11 Other
B.2 Main type of practitioner providing the control program (tick one)	B.2.1 Not applicable (no control program) B.2.2 Not stated B.2.3 Counsellor B.2.4 Peer B.2.5 Psychologist B.2.6 Researcher B.2.7 Social worker

	B.2.8 Teacher/lecturer B.2.9 Occupational therapist B.2.10 Training and vocational specialist B.2.11 Other
B.3 Qualifications of personnel delivering intervention sessions?	B.3.1 Explicitly stated (please specify) B.3.2 Implicit (please specify) B.3.3 Not stated
B.4 Qualification of personnel delivering control sessions?	B.4.1 Not applicable (no control program) B.4.2 Explicitly stated (please specify) B.4.3 Implicit (please specify) B.4.4 Not stated
B.5 Number of people recruited to provide the intervention program	B.5.1 Explicitly stated (please specify) B.5.2 Implicit (please specify) B.5.3 Not stated
B.6 Number of people recruited to provide the control program	B.6.1 Not applicable (no control program) B.6.2 Explicitly stated (please specify) B.6.3 Implicit (please specify) B.6.4 Not stated

Section C: Practitioner training – intervention program

C.1 Was training given to people providing the control program	C.1.1 Yes C.1.2 No

C.2 Description of intervention program training	C.2.1 Details
C.3 What is the delivery setting of the intervention training program?	C.3.1 Not stated C.3.2 Details
C.4 Duration of intervention program training period (overall)	C.4.1 Not stated C.4.2 Unclear C.4.3 One day or less (please specify) C.4.4 1 day to 1 week (please specify) C.4.5 1 week (and 1 day) to 1 month (please specify) C.4.6 1 month (and 1 day) to 3 months (please specify) C.4.7 3 months (and 1 day) to 6 months (please specify) C.4.8 6 months (and 1 day) to 1 year (please specify) C.4.9 1 year (and 1 day) to 2 years (please specify) C.4.10 2 years (and 1 day) to 3 years (please specify) C.4.11 3 years (and 1 day) to 5 years (please specify) C.4.12 Other (please specify)
C.5 Number of intervention program training sessions	C.6.1 Not stated C.5.2 1 C.6.3 1-5 (please specify) C.6.4 5-10 (please specify) C.6.5 10+ (please specify) C.6.6 Other
C.7 Duration of each intervention program training session	C.7.1 Not stated

	C.7.2 30 minutes C.7.3 30 minutes -1 hour C.7.4 1-2 hours C.7.5 2-4 hours C.7.6 6+hours C.7.7 Other
C.8 Does the study report who delivered the intervention program training sessions?	C.8.1 Not applicable, no control program C.8.2 No C.8.3 Yes

Section D: Practitioner training – control program

D.1 Was training given to people providing the control program?	D.1.1 Not applicable (no control program) D.1.2 Yes D.1.3 No D.1.4 Not stated
D.2 Brief description of the control program training	D.2.1 Not applicable (no control program) D.2.2 Not stated D.2.3 Details
D.3 What setting is the control program training session delivered?	D.3.1 Not applicable (no control program) D.3.2 Not stated D.3.3 Details
D.4 Duration of control program training period (overall)	D.4.1 Not applicable (no control program)

	D.4.2 Not stated D.4.3 One day or less (please specify) D.4.4 1 day to 1 week (please specify) D.4.5 1 week (and 1 day) to 1 month (please specify) D.4.6 1 month (and 1 day) to 3 months (please specify) D.4.7 3 months (and 1 day) to 6 months (please specify) D.4.8 6 months (and 1 day) to 1 year (please specify) D.4.9 1 year (and 1 day) to 2 years (please specify) D.4.10 2 years (and 1 day) to 3 years (please specify) D.4.11 3 years (and 1 day) to 5 years (please specify) D.4.12 Other
D.5 Number of control program training sessions	D.5.1 Not applicable (not control program) D.5.2 Not stated D.5.3 1 D.5.4 1-5 D.5.5 5-10 D.5.6 10+ D.5.7 Other
D.6 Duration of each control program training session	D.6.1 Not applicable (no control program) D.6.2 Not stated D.6.3 30 minutes D.6.4 30 minutes -1 hour D.6.5 1-2 hours

	D.6.6 2-4 hours D.6.7 4-6 hours D.6.8 6+ hours D.6.9 Other
D.7 Does the study report who delivers the control training program?	D.7.1 Details

Section E: Additional resource information – intervention program

E.1 Types of equipment and other materials used	E.1.1 Explicitly stated (please specify) E.1.2 Implicit (please specify) E.1.3 Not stated
E.2 Amounts of each type of equipment and other materials (e.g. consumables) used	E.2.1 Explicitly stated (please specify) E.2.2 Implicit (please specify) E.2.3 Not stated
E.3 Overheads	E.3.1 Explicitly stated (please specify) E.3.2 Implicit (please specify) E.3.3 Not stated
E.4 Travel time	E.4.1 Explicitly stated (please specify) E.4.2 Implicit (please specify) E.4.3 Not stated
E.5 Other service recipients / family resources	E.5.1 Explicitly stated (please specify) E.5.2 Implicit (please specify)

	E.5.3 Not stated
E.6 Time off work	E.6.1 Explicitly stated (please specify) E.6.2 Implicit (please specify) E.6.3 Not stated

Section F: Additional resources information – control program

F.1 Types of equipment and other materials used	F.1.1 Not applicable (no control program) F.1.2 Explicitly stated (please specify) F.1.3 Implicit (please specify) F.1.4 Not stated
F.2 Amounts of each type of equipment and other materials (e.g. consumables) used	F.2.1 Not applicable (no control program) F.2.2 Explicitly stated (please specify) F.2.3 Implicit (please specify) F.2.4 Not stated
F.3 Overheads	F.3.1 Not applicable (no control program) F.3.2 Explicitly stated (please specify) F.3.3 Implicit (please specify) F.3.4 Not stated
F.4 Travel time	F.4.1 Not applicable (no control program) F.4.2 Explicitly stated (please specify) F.4.3 Implicit (please specify) F.4.4 Not stated

F.5 Other service recipient/ family resources	F.5.1 Not applicable (no control program) F.5.2 Explicitly stated (please specify) F.5.3 Implicit (please specify) F.5.4 Not stated
F.6 Time off work	F.6.1 Not applicable (no control program) F.6.2 Explicitly stated (please specify) F.6.3 Implicit (please specify) F.6.4 Not stated

Section G: Costs

G.1 Does study include any information on costs?	G.1.1 Yes (please specify) G.1.2 No
G.2 Does study include any information on Cost-effectiveness?	G.2.1 Yes (please specify) G.2.2 No

Appendix 9: Quality assurance tool for economic studies

Drummond checklist (Drummond, Sculpher et al. 2005)

Item		Yes	No	Not clear	Not appropriate
Study design.					
1.	The research question is stated.	☐	☐	☐	
2.	The economic importance of the research question is stated.	☐	☐	☐	
3.	The viewpoint(s) of the analysis are clearly stated and justified.	☐	☐	☐	
4.	The rationale for choosing alternative programmes or interventions compared is stated.	☐	☐	☐	
5.	The alternatives being compared are clearly described.	☐	☐	☐	
6.	The form of economic evaluation used is stated.	☐	☐	☐	
7.	The choice of form of economic evaluation is justified in relation to the questions addressed.	☐	☐	☐	
Data collection.			☐	☐	
8.	The source(s) of effectiveness estimates used are stated.	☐	☐	☐	
9.	Details of the design and results of effectiveness study are given (if based on a single study).	☐	☐	☐	☐
10.	Details of the methods of synthesis or meta-analysis of estimates are given (if based on a synthesis of a number of effectiveness studies).	☐	☐	☐	☐
11.	The primary outcome measure(s) for the economic evaluation are clearly stated.	☐	☐	☐	
12.	Methods to value benefits are stated.	☐	☐	☐	☐
13.	Details of the subjects from whom valuations were obtained were given.	☐	☐	☐	☐
14.	Productivity changes (if included) are reported separately.	☐	☐	☐	☐
15.	The relevance of productivity changes to the study question is discussed.	☐	☐	☐	☐
16.	Quantities of resource use are reported separately from their unit costs.	☐	☐	☐	
17.	Methods for the estimation of quantities and unit costs are described.	☐	☐	☐	
18.	Currency and price data are recorded.	☐	☐	☐	
19.	Details of currency of price adjustments for inflation or currency conversion are given.	☐	☐	☐	
20.	Details of any model used are given.	☐	☐	☐	☐
21.	The choice of model used and the key parameters on which it is based are justified.	☐	☐	☐	☐
Analysis and interpretation of results					
22.	Time horizon of costs and benefits is stated.	☐	☐	☐	
23.	The discount rate(s) is stated.	☐	☐	☐	☐
24.	The choice of discount rate(s) is justified.	☐	☐	☐	☐
25.	An explanation is given if costs and benefits are not discounted.	☐	☐	☐	☐
26.	Details of statistical tests and confidence intervals are given for stochastic data.	☐	☐	☐	☐
27.	The approach to sensitivity analysis is given.	☐	☐	☐	☐
28.	The choice of variables for sensitivity analysis is justified.	☐	☐	☐	☐
29.	The ranges over which the variables are varied are justified.	☐	☐	☐	☐
30.	Relevant alternatives are compared.	☐	☐	☐	☐
31.	Incremental analysis is reported.	☐	☐	☐	☐

32.	Major outcomes are presented in a disaggregated as well as aggregated form.	☐	☐	☐	
33.	The answer to the study question is given.	☐	☐	☐	
34.	Conclusions follow from the data reported.	☐	☐	☐	
35.	Conclusions are accompanied by the appropriate caveats.	☐	☐	☐	

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SCIE systematic research reviews: guidelines
(2nd edition)

A SCIE knowledge review normally comprises two elements: a research review of available knowledge and a practice enquiry. This document details standards and processes relevant to the research review element. The practice enquiry seeks examples of practice in the relevant area of work, drawn from a survey of practice agencies, people who use services and carers and other stakeholders. Separate guidance is available on the conduct of practice enquiries (Rutter 2009). Some knowledge reviews may be conducted without an accompanying exploration of practice.

This guidance focuses specifically on the research review component of knowledge reviews, which should be conducted systematically and transparently. This document will also inform and describe individual SCIE processes and principles – for example, searching, user involvement – employed in relation to other evidence-based SCIE products.

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