Overall programme protocol – HS&DR Evidence Synthesis Centre, ScHARR, University of Sheffield

1. Introduction and Background

The HS&DR programme has commissioned two Evidence Synthesis Centres (University of Sheffield and University of York) to produce evidence syntheses of immediate use to the NHS in order to improve the quality, effectiveness and accessibility of the NHS including delivery of services. Review capacity provided by the Evidence Synthesis Centres aims to improve the responsiveness of the Programme in topics of critical importance or where time constraints prohibit commissioning of reviews through formal review commissioning processes.

Reviews conducted under the Evidence Synthesis Centre Programmes seek to address knowledge gaps in the full range of topics across the wide span of the HS&DR programme' s remit in areas of identified importance to the service. The finished products are designed to summarise key evidence for busy managers and clinical leaders, while evaluating the quality of information and strength of findings. The aim is to produce authoritative single-source documents which provide simple top-line messages in complex areas.

2. Definition

The role of the Evidence Synthesis Centre is to produce reviews, and a range of products to support getting evidence into practice, that are of the highest quality and value to decision makers, together with acting as a leading site for the further development and application of new and robust methodologies. Together these drive forward the role of evidence synthesis in directly addressing current issues for NHS health service organisation, management and delivery.

3. Purpose and Structure

The Evidence Synthesis is organised around three inter-related activities:

- **Production of Reviews.** Fundamental to the Evidence Synthesis Centre activities is the use of robust and systematic methodologies to ensure that reviews are timely, appropriate and authoritative, being fit for purpose within the timeframe as specified. This requires good project management and quality control procedures as well as good communication with the HS&RD Programme and nominated stakeholders.
- **Creation of Review Products.** Building on the foundation of robust evidence syntheses the Evidence Synthesis Centre team seeks to present and disseminate the synthesis outputs in a way that is accessible and appropriate to a variety of stakeholders. This requires familiarity with a range of review methods and formats and their corresponding strengths and weaknesses.
- **Development and application of new and robust methodologies.** Recognising that rapid time pressures and the complexity of service delivery interventions requires the widest possible range of innovative synthesis methodologies the Evidence Synthesis Review Teams seek to trial and evaluate those techniques of most utility for the production of Programme outputs. This requires regular update procedures for methodological developments and engagement with the review methodology community both within the UK and overseas.

The Evidence Synthesis Centre Programme is managed and directed by a Centre Directorate (Co-Directors: Professor Liddy Goyder [Programme Management] and Dr Andrew Booth [Chief Methodologist]). In order to maintain flexibility and responsiveness individual review teams is assembled based on a variety of considerations including topic and methodological expertise. Continuity in methods and quality control is provided by drawing upon a multidisciplinary core team as identified in the proposal. Each review has a nominated lead responsible for project management of the review and

for internal communication with the Centre Directorate. External communication is managed by the Centre Directorate. The Evidence Synthesis Centre is housed within the School of Health and Related Research (ScHARR) at the University of Sheffield.

4. Process

I. Topics are initially be identified by the HS&DR Programme Team. Topics are prioritised by the HS&DR Programme team in negotiation with the Evidence Synthesis Centre Directorate according to a variety of considerations including criticality, strategic importance, feasibility and review capacity across the two Evidence Synthesis Centres. A brief clarification of scope is then produced by the HS&DR Programme Team.

Scoping

II. Evidence Synthesis Centre Staff conduct brief targeted searches to help in the interpretation of scope. At this point emergent issues relating to inclusion and exclusion and boundaries to the scope are clarified and communicated with the HS&DR Programme Team. The Evidence Synthesis Centre Directorate then present one or more options as to how the issue might be operationalised and delivered within the recognised range of systematic approaches to the literature together with associated time/resource implications for each option.

III. Once the HS&DR Programme Team and the Evidence Synthesis Centre Directorate has arrived at a shared understanding of the various options around scope, timeframe and likely deliverables the Evidence Synthesis Centre Team then produce an Interpretation of Brief document. The HS&DR Programme Team share the Interpretation of Brief document internally and with any relevant stakeholders and feed back comments to the Evidence Synthesis Centre Team.

IV. The Evidence Synthesis Centre Team seeks to incorporate all substantive feedback within the Interpretation of Brief document modifying the review

methods to the extent that agreed time and resource constraints allow. At this point the Evidence Synthesis Centre Directorate finalise membership of the review team.

V. If required, i.e. where a review has an "anchored" focus question, a conventional review protocol document will be produced at this point. For all other circumstances the final agreed expanded version of the Interpretation of Brief document becomes the document of record. Either the Review Protocol or the Interpretation of Brief document is signed off by the HS&DR Programme Team.

VI. At this point the HS&DR Programme Team publishes the protocol/the Interpretation of Brief document on the HS&DR Programme website.

Mapping

VII. Upon production of the Interpretation of Brief document a qualified information specialist conducts systematic searches of major bibliographic databases. These searches are supplemented by other complementary search approaches, such as citation searching and Internet searches as appropriate.

VIII. Review team members assess identified items for relevance to the review question to create a dataset for each review topic. Selected items are either coded to create an evidence map or full-text obtained for more in-depth analysis.

IX. At this point the Review Team are in a position to characterise the retrieved literature more accurately. They communicate with the HS&DR Programme Team regarding any options to be explored with regard to which subtopics or types of evidence are to be prioritised, any likely uncertainties around the quality and coverage of the evidence, evidence gaps.

X. Further informed discussion takes place regarding the exact parameters of the research, within the overall agreed brief. This determines the final exact configuration of the report deliverable and the methods used to deliver this.

XI. Final decisions as to types of evidence and sources of data to be included are recorded in a formal Amplification of Brief/Amendment to Protocol document. NB. Amendments to Protocol, for focused questions, will be relatively uncommon and typically made for scientific reasons (e.g. a change in the tool used for quality assessment, method of synthesis etcetera). In contrast the Interpretation of Brief document is considered a more organic flexible document that responds to logistic considerations. Logistic considerations captured in the Amplification of Brief may include, but not be limited to, the extent to which review objectives might be met by a review of reviews approach, the relative proportion of time and resources to be directed at each review sub-question, how far down the conventional hierarchy of evidence a particular review might progress and the extent to which explicit examination of theory might illuminate an understanding of the programme or intervention.

Analysis & Interpretation

XII. All review products attempt some form of quality assessment in order to establish the robustness of review findings. In scoping and mapping reviews such an assessment is a holistic judgement of systemic errors arising from study design. Where more detailed analysis is required a formal quality assessment of individual studies is conducted using one or more recognised checklists.

XIII. Synthesis takes various forms depending upon the purposes of each review. In all cases tabular and narrative synthesis allows ready identification of the characteristics of identified and included studies. This is supplemented by graphical and numerical summaries where appropriate. In some cases an appropriate analytical framework, e.g. logic model, topic

specific conceptual model etc, is identified to inform both data extraction and subsequent synthesis.

Deliverables

XIV. Review products take one or more of several forms depending on the prespecified requirements for the review. Indicative products are itemised below (Table 1):

Table 1 - Indicative range of review products

Product	Purpose
Mapping Review	An overall assessment of a topic area, typically with the intent of identifying areas to be subsequently explored through systematic reviews
Scoping Review	An assessment of a clearly delineated topic area with a view to informing either future policy or a subsequent systematic review.
Rapid Review	A rapid assessment of the available evidence, in terms of the likely size and direction of effect, that seeks to follow systematic search and review principles to the extent that these are possible within a narrow time window.
Gap Analysis	A form of mapping that specifically seeks to identify research gaps with the intent of informing the commissioning of future primary research.
Review of Current Practice	An attempt to supplement existing practice captured from the published literature with unpublished (sometimes unevaluated) practice with an intent to provide a more complete and informative picture of potential innovations and variations in practice.
Conceptual Model	An interpretive product that seeks to explain and explore mechanisms by which an intervention or programme might work in order to inform future intervention design and evaluation.
Systematic Review Protocol/Brief	A clearly focused specification for a future review informed by identification of the likely evidence through scoping and other preliminary review activities
Systematic Review	A systematic assessment and presentation of all identified eligible literature addressing a focused question using agreed procedures to minimise the likely effect of bias

5. Funding

Funding for reviews is included within an overall cost envelope for the three years of the contract. In recognition of the different time and resource implications of different review questions and deliverables the HS&DR Programme Team and the Evidence Synthesis Centre Directorate negotiate the exact configuration of projects and deliverables within each contract year.

6. Approval of Programme

The HS&DR Programme Team is responsible for approval of selection of individual topics, finalisation of agreed review protocols/interpretations of brief and for finalisation of the overall programme portfolio within each contract year and within the three year contract envelope.

7. Monitoring

7.1 Process

The Evidence Synthesis Centre Directorate monitors all within project and within contract year staff utilisation and resource expenditure. This informs the exact configuration of projects and deliverables to be delivered within year and also creates benchmark estimates for different types of review product to inform future workload planning within and across the two Evidence Synthesis Centres.

The HS&DR Programme Team monitors progress through brief email reports from the Evidence Synthesis Centre Directorate and at least one teleconference during the conduct of each review. Any issues and/or variations to the review protocol/interpretation of briefs are signalled through these communication channels and agreed responses documented and subsequently implemented. Further meetings, for individual projects or management of the programme, are scheduled as required.

The quality of Evidence Synthesis Centre outputs is monitored through standard HS&DR Programme peer review mechanisms. The HS&DR Programme Team and the Evidence Synthesis Centre Directorate seeks to communicate to peer reviewers any conceptual and pragmatic constraints within which the review product has been conducted.

The HS&DR Programme Team meets with the Evidence Synthesis Centre Directorates at least once in every contract year.

The Evidence Synthesis Centre Directorate communicates details of all outputs arising directly or indirectly from the programme including peer reviewed papers, non-peer reviewed communications, conference presentations and teaching and other dissemination materials. Final versions of all peer reviewed papers are submitted to the HS&DR Programme Team in line with the NIHR 28 day rule.

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7.2 Success Criteria

Main success criteria relate to the usefulness of review findings to the NHS. In the short-term this may be measured via direct feedback from the relevant groups of NHS managers and clinicians. In the longer term it may be possible to measure whether findings can be shown to have influenced commissioning decisions or have led directly to change in service delivery. Success is measured by results which support commissioning and service development to increase effectiveness, efficiency and equity of health services. Additional success factors relate to demonstrating the methodological leadership of the centre in facilitating widespread and appropriate use of methods for synthesising diverse evidence.

8. Resourcing

Review activities are largely resourced from within current teams and infrastructures within the School of Health and Related Research (ScHARR), University of Sheffield. The Evidence Synthesis Centre Directorate seeks to identify the most appropriate available research staff members for each individual review project, both in terms of methodological and topic expertise. Input from external experts is solicited where necessary, using contract funds reserved for this specific purpose.

Andrew Booth (03/04/2014)

on behalf of ScHARR HS&DR Evidence Synthesis Centre